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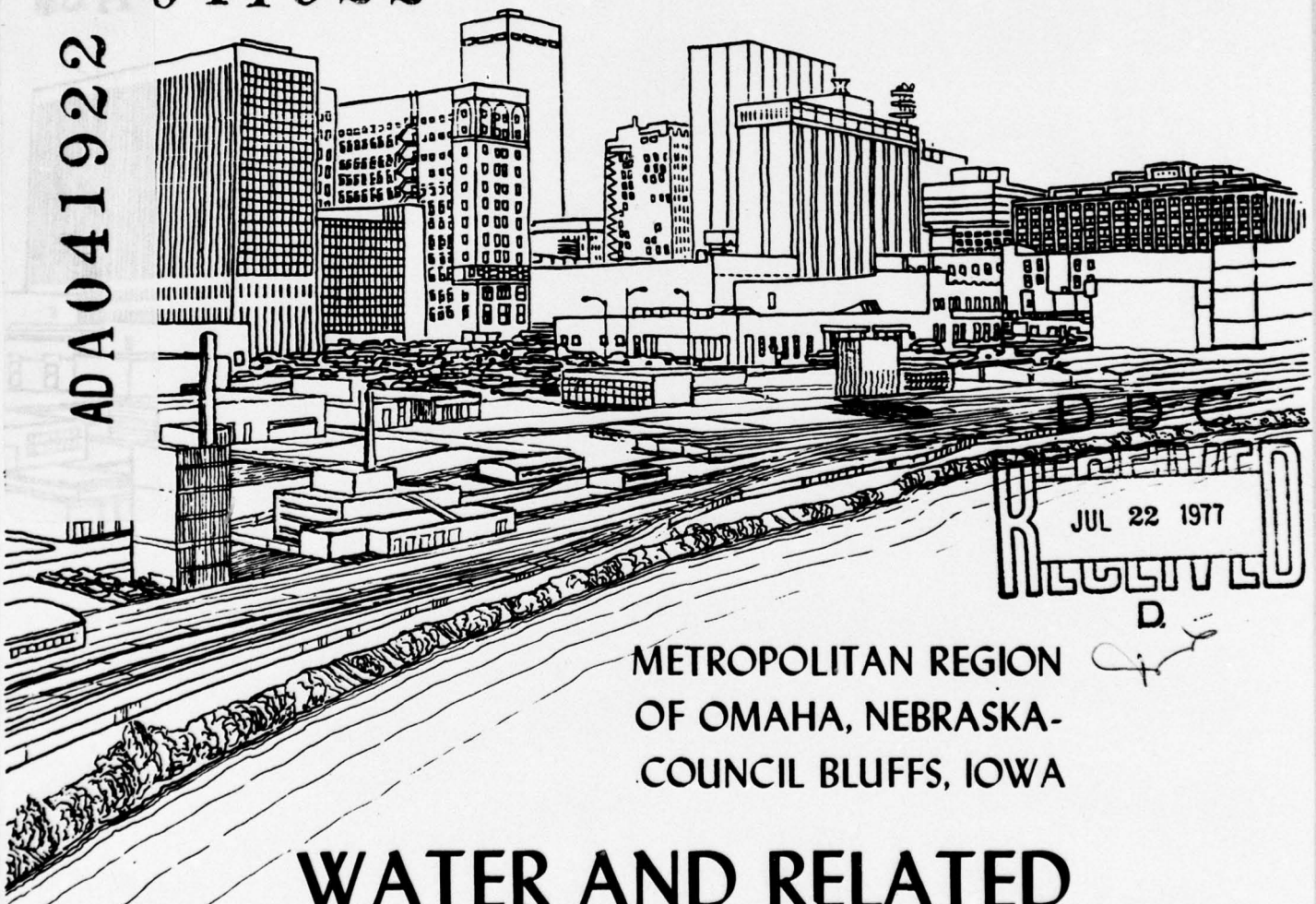
VOLUME III
PLAN FORMULATION APPENDIX

ANNEX A - ALTERNATIVE FUTURES

REVIEW REPORT ON THE MISSOURI RIVER AND TRIBUTARIES



METROPOLITAN REGION
OF OMAHA, NEBRASKA-
COUNCIL BLUFFS, IOWA

WATER AND RELATED LAND RESOURCES MANAGEMENT STUDY

JUNE 1975

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WATER AND RELATED LAND RESOURCES MANAGEMENT STUDY.

Volume III. Plan Formulation Appendix.
Annex A. Alternative Futures.

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REVIEW REPORT FOR
METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA
WATER AND RELATED LAND
RESOURCES MANAGEMENT STUDY

Volume III Plan Formulation Appendix

ANNEX A	ALTERNATIVE FUTURES
ANNEX B	WASTEWATER
ANNEX C	WATER SUPPLY
ANNEX D	FLOOD CONTROL
ANNEX E	RECREATION

PREPARED BY THE

OMAHA DISTRICT CORPS OF ENGINEERS

DEPARTMENT OF THE ARMY

REVIEW REPORT FOR
METROPOLITAN OMAHA, NEBRASKA
-COUNCIL BLUFFS, IOWA
WATER AND RELATED LAND
RESOURCES MANAGEMENT STUDY

Plan Formulation Appendix

Annex A Alternative Futures

SECTION A	INTRODUCTION
SECTION B	LAND USE BACKGROUND AND GOALS IN THE COMMUNITY
SECTION C	THE ALTERNATIVE MODELS CONCEPT USED FOR THE URBAN STUDY
SECTION D	EFFECTS OF THE ALTERNATIVES
SECTION E	INSTITUTIONAL CONSIDERATIONS OF ALTERNATIVE FUTURES
SECTION F	POPULATION PROJECTION TABLES

PREPARED BY THE
OMAHA DISTRICT CORPS OF ENGINEERS
DEPARTMENT OF ARMY

SECTION A

INTRODUCTION

INTRODUCTION

TABLE OF CONTENTS

Item	Page
PURPOSE AND SCOPE	A-1
STUDY PARTICIPANTS	A-4
WATER AND LAND	A-4
THE LAND USE ISSUE	A-6
WHY ALTERNATIVE FUTURES?	A-8

SECTION A

INTRODUCTION

Purpose and Scope

1. This annex to the report explains why alternative futures were used; it describes the alternatives that are being considered in current local planning; the alternatives desired by various interest groups; and the alternative selected for use in the study. It also presents a general description of the effects of the alternatives.

2. There is a complex and intricate relationship between water, and land resources, and human interaction. Controversy has emerged over the use of land. Because of numerous considerations, the "Alternative Models" concept was used in the Urban Study. This concept allows the public to weigh the problems and benefits of urban growth policies, allows for multiple-objective resource planning to take place, allows for a determination of the water resource role or responding to or shaping growth, and allows the

next page

cont → Corps of Engineers to take a non-advocacy position with regard to land use. In the Omaha-Council Bluffs region, planning agencies, environmental groups, and other community organizations appear to favor the redevelopment of the city and a curtailment of urban sprawl. On the other hand, private enterprise organizations feel that the consumer is best served by suburban development.

3. In the seven-county rural areas, numerous planning commissions on balance either favor or assume continued outward expansion. Thus, they appear to see suburban spread in the years to come.

4. Various organizations within the study area have detailed their own alternatives or advocated a particular future growth pattern. Private organizations have not indicated a long range growth plan for public consumption. The Omaha Planning Department advocates a "Time Zone" concept where inner-city areas are filled in before fringe development can continue. The Missouri Riverfront Development Program emphasizes the revitalization of the central business district, and satellite "new towns" and "new towns-in-town" concepts. The Metropolitan Area Planning Agency's (MAPA), 1995 Continuing Omaha Area Transportation Study envisioned an orderly but widely dispersed city. MAPA's year 2000 Transportation Plan is considering growth alternatives. MAPA will also initate a Comprehensive Land Use Planning Program on 1 July 1975.

5. From the ideas and plans of local planners and citizens, and from a "socio-economic futures" study performed by Dana College, four alternate growth concepts were formulated for use in the Urban Study.

6. Concept "A" is based upon the continuation of current trends, and scatteration of population was projected. Concept "D" is similar to "A" but rather than population dispersing in an unstructered fashion, growth would occur along major transportation networks. Concept "B" is a compact metropolitan city separated from "satellite cities" by open space. Concept "C" is a higher density, more compact city than Concept "A". The four alternative models bracket the range of growth-pattern possibilities.

7. The four alternative models were used as the basis to formulate water and sewerage plans for the metropolitan area. The sensitivity of flood control and recreation planning to the alternatives was also determined. Costs of several public services and environmental effects were generalized using the report Costs of Sprawl to provide a comprehensive picture of the effects of growth policies.

8. The philosophy and the policies to either encourage suburban spread or retard it were also explored. In the end, the shape of the city and its density reflects the social, political, and economic arrangements desired by the public, and by private and political leaders.

Study Participants

9. Participants in the study are those individuals, groups, and agencies that have expressed an interest in urban growth either formally or informally. Those organizations which have committed their views to print are included in this annex. Many others have expressed opinions, but for various reasons prefer to remain anonymous. The Metropolitan Area Planning Agency staff, the Citizen Advisory Board, and the Growth Policies Committee also provided input to the study.

Water and Land

10. Water and land resources are closely related and must be considered jointly in planning for the future. Land use policies that promote horizontal expansion or that encourage more compact cities have a direct impact on the location and amounts of water needed to support urbanization; on the location, types, and amounts of pollutants generated to the environment; on the need for flood protection; and on the location and types of recreation facilities provided.

11. In the past, water resource management systems have been placed in response either to anticipated growth or to growth that has already occurred, rather than being used as a guide to where growth should occur.

12. In the Omaha-Council Bluffs metropolitan areas, water supply has generally kept pace with urban expansion. Wastewater management, on the other hand, has lagged far behind urban expansion, thereby causing pollution of local streams, lakes, and rivers. Flood plain management had, until recently, been non-existent.

13. In the past, highways were a major factor in determining the growth of Omaha and Council Bluffs. With the completion of most of the interstate highway system, sewer and water systems will take on a more important role in encouraging or retarding population dispersion.

14. Community regulation of sewer and water system locations to guide urban development will probably develop controversy about traditional property rights. Therefore, planning for these systems must take into account social and economic impacts both for the individual property-owner and also for the community at large.

15. Future land use should be considered as a variable in the urban water resource planning process. Land use as a variable allows water resource plans to be developed in harmony with overall environmental objectives rather than for single-purpose efficiency. For instance, water quality management may be improved by connecting individual treatment plants into a regional system served by

one treatment plant with interceptor sewers conveying wastes from the individual plant to the centralized plant. Though this may be the most cost-effective solution, the interceptors would likely stimulate urban development in prime agricultural areas. If preservation of prime farmland is also a planning objective, other solutions to water quality management must be identified so that the water resource plan can be more in harmony with total environmental objectives.

16. The above points are relevant to the water resource plans developed in the Omaha-Council Bluffs Urban Study. Land use is considered as a variable in the planning process by considering alternative urban land use futures.

The Land Use Issue

17. Not all agree about the use of land. Some feel that use of the land should depend upon market demand and planning of land use by private developers. Others feel that land use must be decided by community regulation. They contend that private development encourages high energy use and population spread which are detrimental to the environment.

18. With this controversy, the Corps of Engineers concluded that it must consider alternative future land-use forecasts. In this

way, the Corps, as a public agency, could outline to the public potential problems and benefits with various land use policies. Water resources considerations were prominent concerns in these alternatives. If alternative growth patterns were not considered and if the Corps were not to elicit some community consensus on urban planning issues, the planning process would fall short by not considering the desires of an articulate local constituency. The study used the "Alternative Model" method of future forecasts.

19. On the national level, the use of land has become a controversy. Each year for more than a decade 350,000 acres of farmland, an area about half the size of Rhode Island, are lost to urban development. Additionally, another 1.9 million acres are removed from food production because of highways, airports, flood control, recreation, and preservation of wilderness.

20. Nevertheless, agriculture has been able to maintain high levels of production. The U. S. Department of Agriculture believes these levels of production can remain stable with improved technology and with use of other land. The problem though, is that these new endeavors are energy-intensive in a world of precarious energy supply. Irrigation is also needed in an era of increased demand from this natural resource.

21. Scatteration and sprawl development break up farms and raise the cost of food production. Land use decisions center around how much a community wants to invest in urban sprawl and how much priority should be placed on the single-family dwelling as opposed to costs involved in loss of land and public service expenditures.

Why Alternative Futures?

22. Quite often, the average individual hears forecasts about what will happen the next day or in years to come. At times, so many predictions occur that it is hard to believe any forecasts.

23. Without realizing it, most people in our society do some planning for the future. If the average individual has trouble predicting what will happen in a few weeks or next year, planners have even more problems. Their task is to describe housing patterns, living conditions, and water needs of people some twenty to fifty years in advance. Planners must also determine the influence of bankers, realtors, public officials, and other professionals who are also involved in the land use planning process. Admittedly, many projections of the future are wrong. On the other hand, there are many reasons that society can feel some confidence about planning. Years ago, Herman Cohn said that the automobile was a benefit to society but the author noted that it had some key disadvantages. Cohn foresaw the combustion engine encouraging air pollution, and displacing workers on the farm who would gravitate to ghettos of the cities. He also said that the auto would be the demise of the public transit system, thus encouraging the creation of more automobiles and more pollution.

24. Cohn was not alone in his successful projections. Jules Verne predicted future space flights. R. Buckminister Fuller, decades

ago, predicted a big jump in technology after World War II as well as in environmental problems. Back in the 1840's, deToqueville made some valid predictions about life in the United States today.

25. What many have come to understand is that, where some have erred in prediction, numbers of others are correct.

26. Another source of encouragement for planners, citizens, and leaders is that the growth and direction of the overall configuration of a city generally does not drastically change in a short period though some locational changes may make rapid changes. Aside from "boom towns", many cities and towns grow in a fashion that is not so orderly as to pinpoint what will absolutely happen, but orderly enough to talk about the future with some confidence.

27. Change appears rapid at times because of fleeting fads and fashions. But urban growth is much slower and less erratic.

28. Though tomorrow is still uncertain, there is enough that occurs in one's life that planners can make some fairly accurate projections about the future. Many now in business, industry, and public service have literally invested millions of dollars in the future. In a real sense, their policies, stated or unstated, are a vital part of the planning process.

29. Over the years, citizens and their leaders have had to grapple with this problem of how to decide what might occur in the future. This study has chosen a method called "Alternative Futures."

30. After reviewing all other procedures ("Zig-Zag Models", "Delphi Forecasting", "Analagous Models", "Envelope Forecasting", "Socio-Cultural Forecasting", "Scenario Writing", "Trend Line", and "Advocacy Projections"), the "Alternative Futures" was selected to be the best for a public agency. The "Alternative Future Model" approach allows citizens and public and private groups to participate in decision making.

31. As noted earlier, this model was used because not all agree on the direction of the future growth of the community. Some would like to see the city continue expanding horizontally. They cite that this kind of expansion best complements the market system and is what consumers really desire. Others would like a more compact and attractive city because public service, environmental problems, and use of energy would be improved. Others prefer that some future population growth be decentralized to rural growth centers. The "Alternative Model" approach is useful in describing the benefits and disadvantages to suburban growth versus urban revitalization.

32. In choosing alternatives, it was assumed the current system of government would be continued. Systems without any government or with total government were considered possible, but not very probable.

33. Early in the project, Dana College was contracted to provide the rationale and substance of various alternative futures. The report prepared by the college was based on in-depth interviews with representative groups from all sectors of the population.

Surveys containing key questions were used for all mayors of the seven-county area and for the national political figures known to have differing political persuasions. All local planning agencies were consulted.

34. The futures that the researchers described were based on the presence of stability or substantial change in political, social, and economic conditions. Two of the models suggested that if the Country should dramatically change in its political direction to one of yearning for the past or to one of community regulation, suburban growth would diminish. On the other hand, if the Nation should remain on the same political course, urban spread would be envisioned.

35. A fourth alternative, which was similar to the political stability model, was added. The difference was that, in the Dana group report, population spread was rather unstructured. In the fourth alternative, growth emerges in a finger-like fashion, spreading outward along major transportation corridors.

36. The issue in terms of forecasting is to develop "Sensitivities" of growth that may be introduced to the public. Thus the "Alternative Futures" Model was used.

SECTION B

LAND USE BACKGROUND AND GOALS IN THE COMMUNITY

LAND USE BACKGROUND AND GOALS IN THE COMMUNITY

TABLE OF CONTENTS

Item	Page
INTRODUCTION	B-1
OMAHA-COUNCIL BLUFFS URBAN LEVEL ORGANIZATION	B-2
THE OMAHA CITY PLANNING DEPARTMENT	B-2
METROPOLITAN AREA PLANNING AGENCY (MAPA)	B-3
CENTER FOR APPLIED URBAN RESEARCH	B-8
COUNCIL BLUFFS METROPOLITAN AREA PLANNING COMMISSION	B-9
OTHER URBAN GROUPS	B-10
THE SEVEN-COUNTY AREA	B-14
CASS COUNTY	B-14
DOUGLAS COUNTY	B-15
SARPY COUNTY	B-18
WASHINGTON COUNTY	B-21
HARRISON COUNTY	B-22
MILLS COUNTY	B-23
POTTAWATTAMIE COUNTY	B-23
AN OVERVIEW	B-25

TABLE OF CONTENTS (Cont'd)

LIST OF FIGURES

No.	Title	Follows Page No.
B-1	CITY OF OMAHA 1920	B-2
B-2	CITY OF OMAHA 1970	B-2
B-3	MAPA LAND USE PLAN 1995	B-5
B-4	MAPA (COATS) 1995 LAND USE PLAN	B-5
B-5	MISSOURI RIVERFRONT CORRIDOR LAND USE PLAN 1995	B-7

SECTION B

LAND USE BACKGROUND AND GOALS IN THE COMMUNITY

Introduction

1. There are important questions about the future of the metropolitan region. They involve the amount of outward expansion and the amount of redevelopment.

2. This section is a description of land use background and goals of numerous groups which have committed their values to print about how the Omaha-Council Bluffs region and the seven-county area will look in the years to come. These groups are categorized by their organizational level. Growth goals will first be described for the Omaha-Council Bluffs area and then for the seven counties.

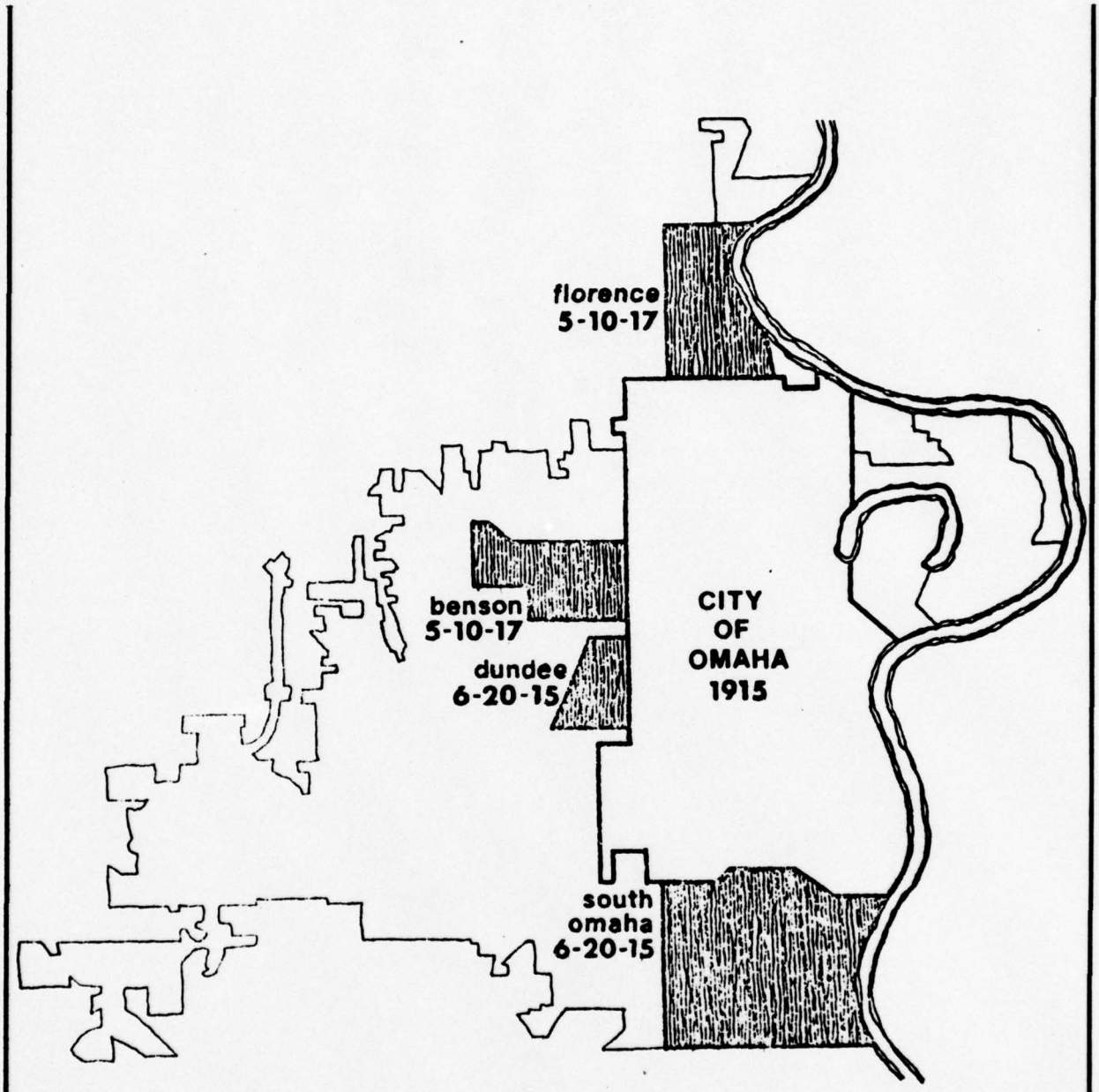
Omaha-Council Bluffs
Urban Level Organization

THE OMAHA CITY PLANNING DEPARTMENT

3. From the beginning, much of Omaha's expansion has been outward, to the west, south, and north. On over 250 occasions Omaha has annexed surrounding areas, including South Omaha, Dundee, Florence, Benson, and Millard. The original city expanded from 5.5 acres to 32,000 acres by 1918. The city in 1920 appeared as shown in figure B-1.

4. By 1925 new areas on the west and southwest were added. Declines in annexation occurred during the depression, but there was an upsurge from the 1950's to date. In the early 70's, the Omaha area appeared as indicated in figure B-2.

5. Until recently, the city of Omaha favored a continued annexation policy. The current administration, however, will annex only those subdivisions which can prove that their assessed taxes will be able to pay for debt retirement plus city services provided to that subdivision. This policy may tend to slow down the rate of new subdivision development or at least cause development to occur at higher density. Most active subdivisions around Omaha (sanitary and improvement districts) are dependent upon annexation of the general obligation debts by Omaha in order to avoid a disproportionately high mill levy as compared to that experienced by residents inside the corporate limits of Omaha.

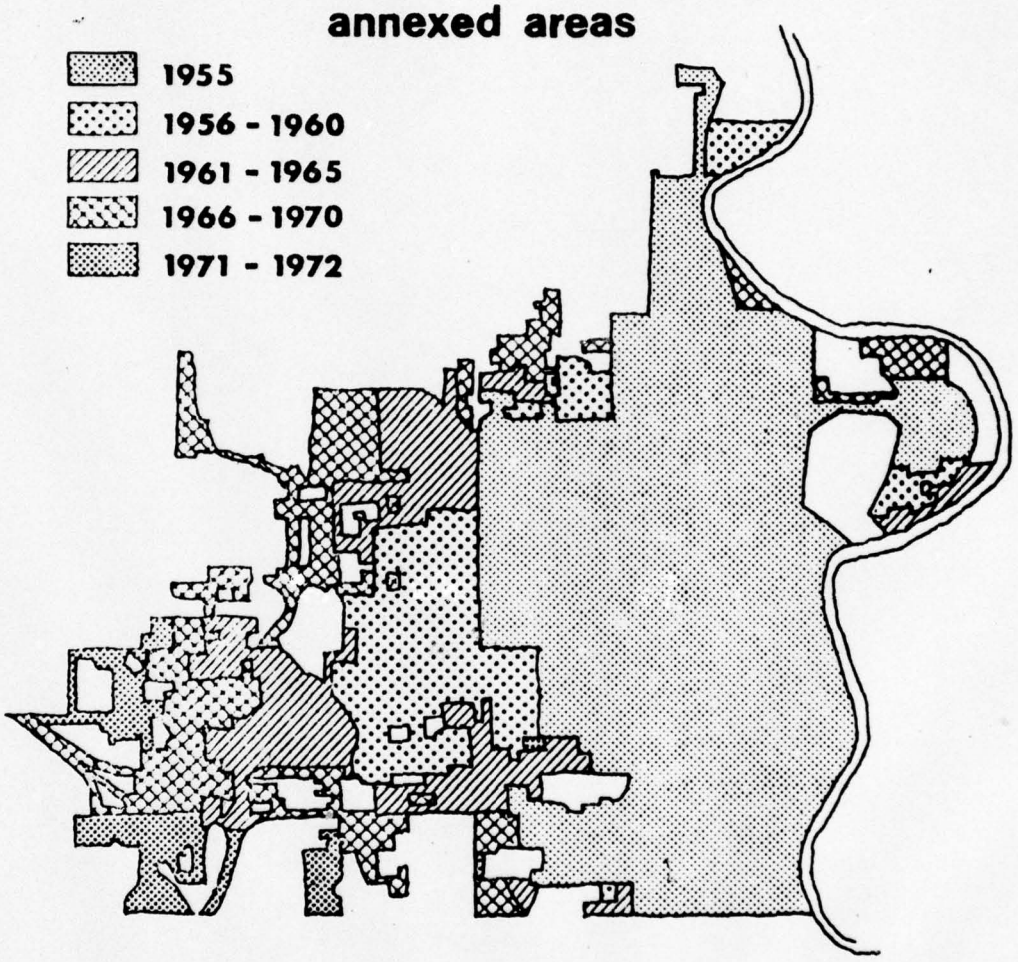


METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA

CITY OF OMAHA
1920

U S ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

JUNE 1975



METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA

CITY OF OMAHA
1970

U S ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

JUNE 1973

6. The Omaha City Planning Department has proposed a new "Time Zone" concept to urban growth. This approach is one of curtailing urban sprawl and encouraging orderly outward growth.

7. Zone I is that portion of the city in which there have been population decreases and physical deterioration. The "Time Zone Plan" would assist in the revitalization of the area and would improve city services through regulation and incentives. Development of a growth zone is permitted when 75 percent of the preceding zone (based on a 12-square-mile zone with 3-square-miles allowed for freedom of choice and transition) is completed. Zone 2 is drawn so that westward expansion should occur no farther until suitable redevelopment has emerged. Zone 3 permits development around the Papillion Creek lakes and the eastern end of the Fremont Freeway. Zone 4 is drawn within the city's three mile limit.

8. Some of the assumptions of the plan are that land-use absorption rates should be about 1-square-mile annually; which is a slower population growth than occurred in the last decade. Zone 3 should open for development in 9 to 10 years. The Omaha Planning Department feels the policy should be reviewed every 10 years. New zones can be created as previous zones become urbanized.

METROPOLITAN AREA PLANNING AGENCY (MAPA)

9. MAPA is the regional planning organization for Douglas, Sarpy, Washington, and Pottawattamie Counties. One of MAPA's first major published plans was the Metropolitan Area Comprehensive Plan

adopted by the Council of Elected Officials in 1971 to guide development for the urban region through 1995. In making decisions about the future growth of the area, MAPA took into account numerous factors, such as transportation, water distribution, population increase and distribution, and other characteristics.

10. MAPA notes that past growth was of low-density horizontal urban sprawl. This spread reflected consumer preference and location in reference to the economic spine snaking its way through the core to the rim of the city.

11. Future population growth for the Standard Metropolitan Statistical Area, which is hereinafter referred to as the SMSA, was projected at approximately 750,000. One of the major questions before MAPA and the Council is how they viewed future growth. Five concepts were considered by the Council:

(1) Continue increasing density and urbanization within the core city;

(2) Plan suburban or planned unit development outside the core city (design for ultimate inclusion in core city);

(3) Create new cities (self-contained 50,000 to 100,000, plus population) on periphery and outside core city;

(4) Build upon existing smaller cities in rural areas (finding urban centers for future urbanization of up to 30,000 population); and

(5) Provide more social and capital investment in rural areas,

thereby stemming migration trend to large urban areas, and building small towns no larger than 5,000 population.

12. Council officials favored a combination of growth concept (2), the continued suburbanization of the metropolitan area; and concept (4), an increased emphasis on small cities on the periphery; as the most desirable future urban growth pattern.

13. The land use plan eventually adopted reflects, almost totally, continued low-density suburbanization, as indicated on figure B-3.

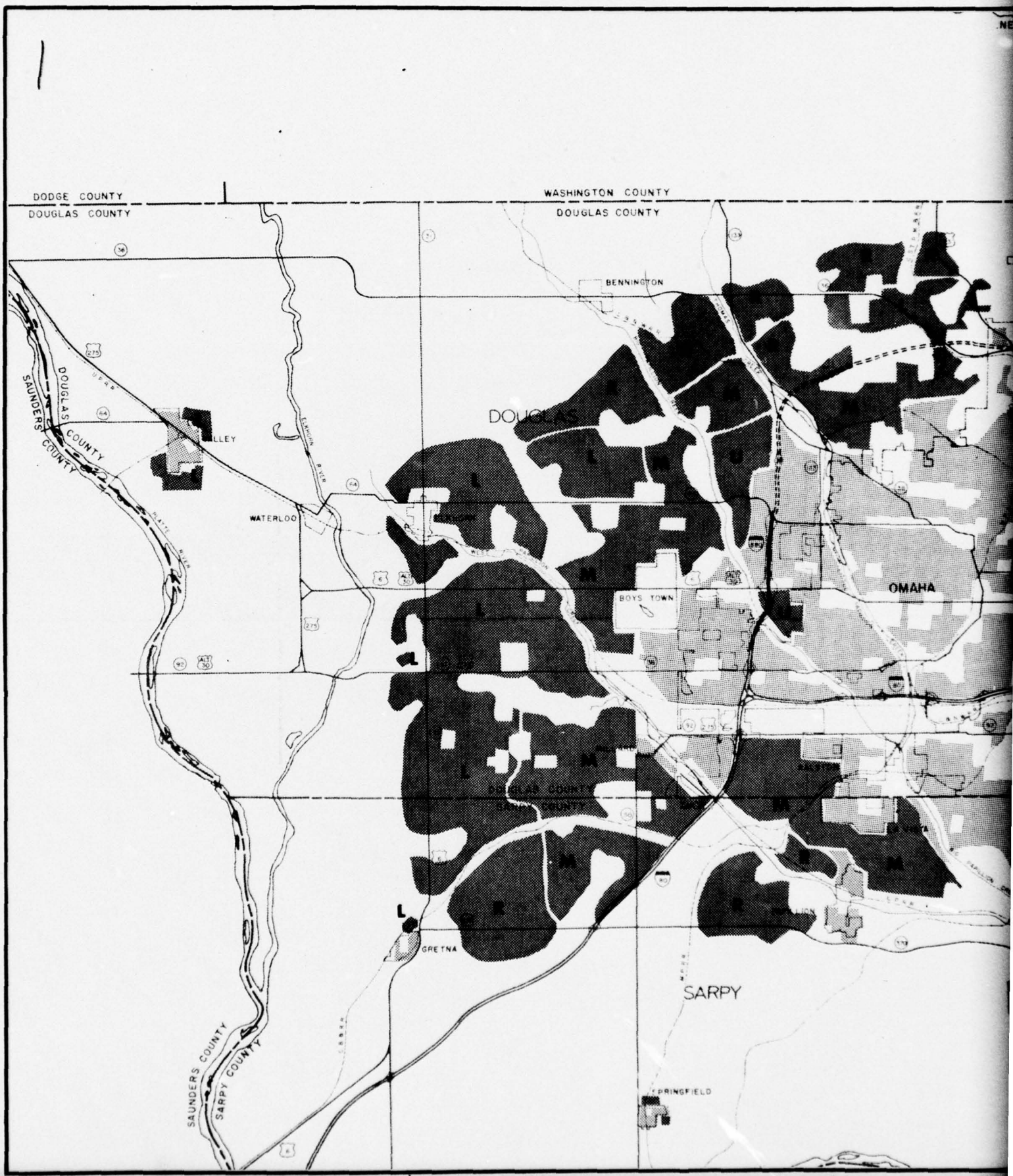
14. In 1973 MAPA again looked at future land use in preparing its Continuing Omaha Area Transportation Plan (COATS) for 1995. Population projection for the SMSA was 856,000. The starting point for land use consideration was the 1971 plan; however, adjustments were made to account for the current trends in development patterns and housing densities. Figure B-4 depicts the selected land-use plan.

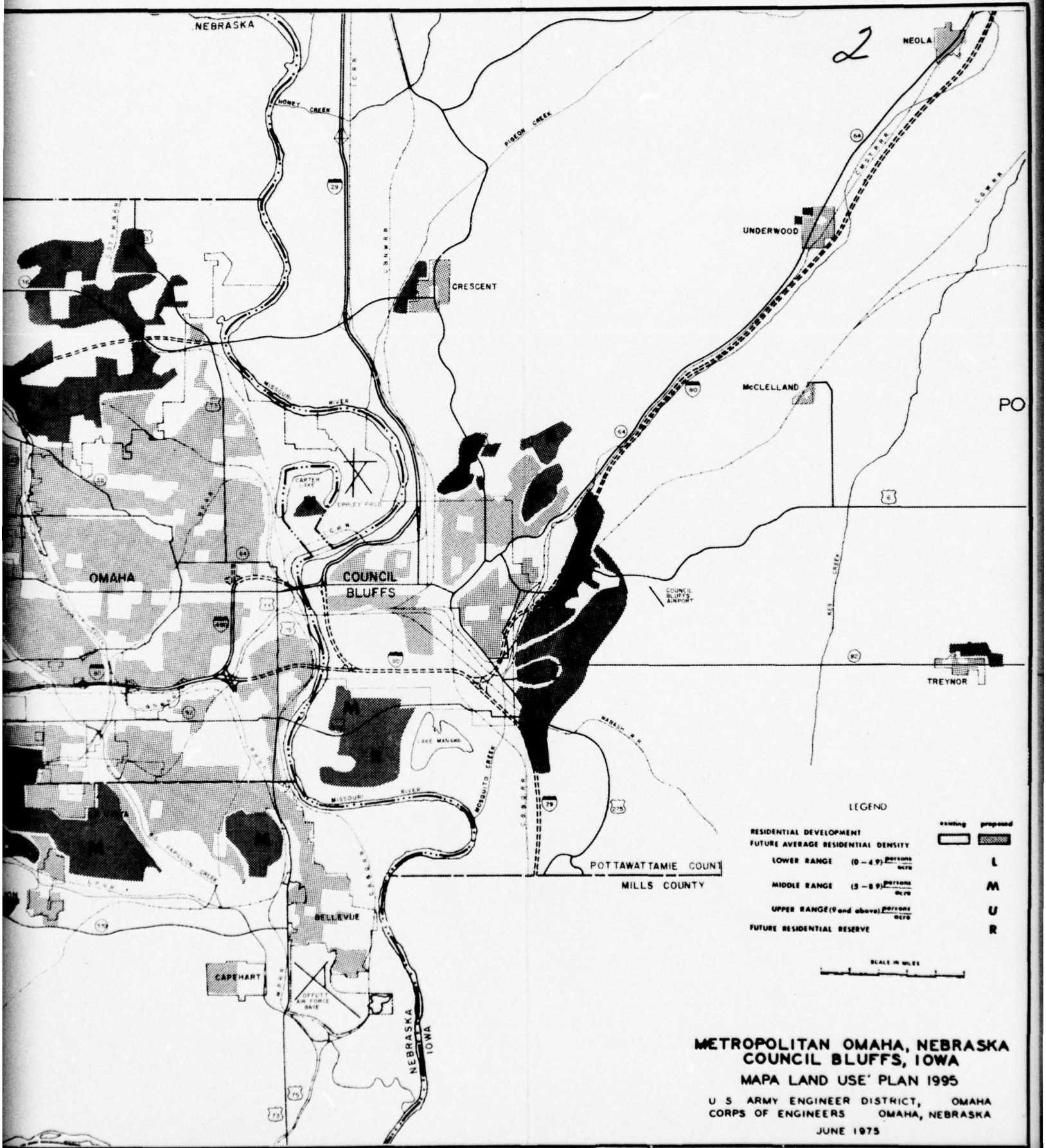
15. MAPA is currently in the process of preparing its COATS 2000 Plan. In preparation of the plan, alternative land use forecasts are being considered along with alternative transportation systems. Alternatives currently being considered are:

- Alternate A - trend line forecast; similar to the COATS 1955 Land Use Plan.

- Alternate B - Concentrated Development Plan; an overall higher-density plan than Alternate A.

- Alternate C - Controlled fringe development and satellite cities.


DODGE COUNTY
DOUGLAS COUNTY
WASHINGTON COUNTY
DOUGLAS COUNTY
BENNINGTON
DOUGLAS
SAUNDERS COUNTY
DOUGLAS COUNTY
WATERLOO
BOYS TOWN
OMAHA
DOUGLAS COUNTY
SARPY COUNTY
GRETNA
SARPY
SAUNDERS COUNTY
SARPY COUNTY
SPRINGFIELD

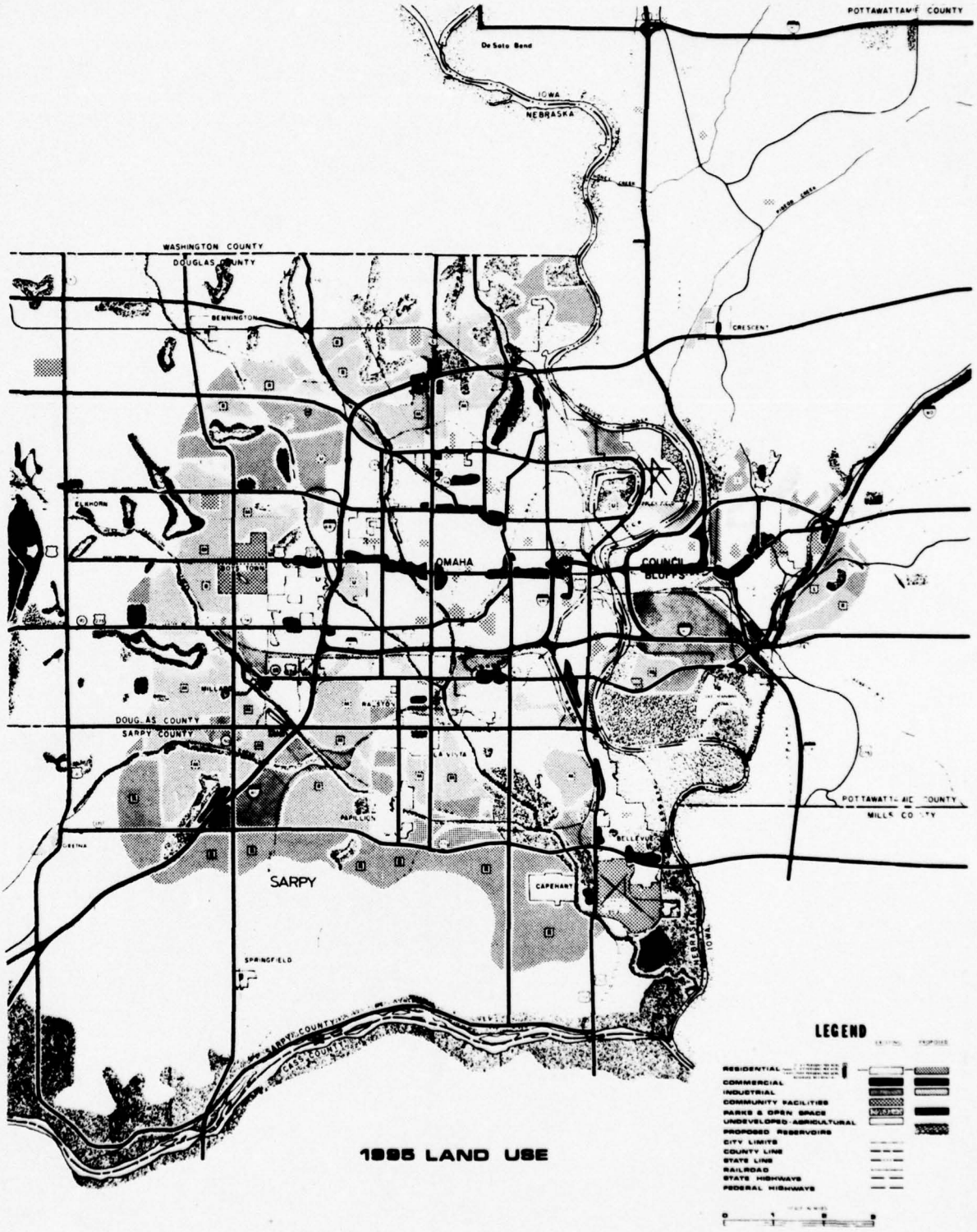


METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA
MAPA LAND USE PLAN 1995

U S ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

JUNE 1975

VOLUME III ANNEX A FIGURE B-3



1995 LAND USE

METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA

MAPA (COATS) 1995
LAND USE PLAN

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

JUNE 1975

VOLUME III ANNEX A FIGURE B-4

16. As general goals, MAPA wants to adopt policies to promote orderly growth and to curb urban sprawl in conjunction with a balanced separation of land use and preservation of key environmental areas. MAPA will initiate a comprehensive land use planning process on 1 July 1975 to be completed in two years.

17. Operating under the auspices of MAPA are several departments, task forces, and citizen groups. Important to land use are the MAPA-Riverfront Development Department, the MAPA/Riverfront Housing and Community Development Task Force, and the Citizens' Advisory Board.

MAPA-MISSOURI RIVERFRONT DEVELOPMENT PROGRAM

18. The Missouri Riverfront Program wants to fully utilize the river and its vicinity. It desires to revitalize the central and downtown areas, as well as to serve as a catalyst for development throughout a six-county region.

19. In developing the river and vicinity, the program would attempt to inhibit urban sprawl. Pulling people back to the river is a primary objective. It wants to fuse together various citizens as well as government levels in a program that can revitalize the entire area as well as the surrounding counties.

20. This program, initiated in 1970, has proposed a plan which includes downtown revitalization, "New Towns-In-Town", greenbelts, and a special emphasis on a new vision of the Missouri Riverfront. The plan is concerned with not only Omaha-Council Bluffs area but the wider seven-county area.

21. The riverfront land use plan, shown in figure B-5, is projected to 1995. For industrial areas, the "Riverfront Economic Development Task Force" projects 20 industrial parks near the river. In the interim, prior to construction of industrial sites, this land should be set aside for agriculture. Sites range from 24 acres to 273 acres.

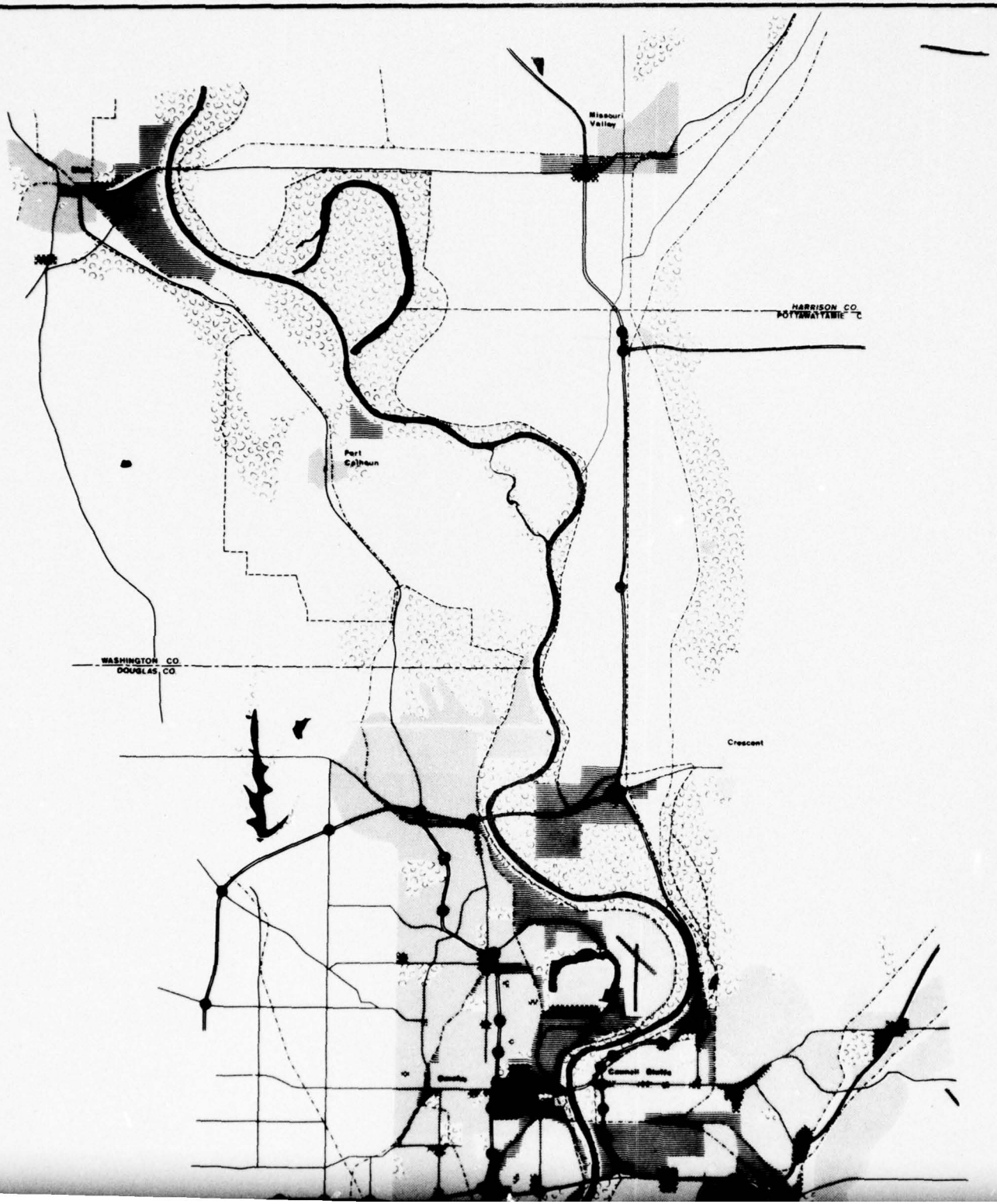
22. Commercial acreage is envisioned near key interstate exchanges and in the Omaha and Council Bluffs central business districts. A particular emphasis is placed on the "Central Park Mall" in Omaha.

23. Residential projections are keyed to MAPA planning studies.

24. Three "New Towns-In-Town" were recommended by the Riverfront New Towns Task Force to serve as urban redevelopment projects in Omaha, Carter Lake, and Council Bluffs. Three satellite city new towns were also recommended; one southeast of Fort Calhoun in Washington County, one east of Bellevue in Mills County, and one in the Lake Manawa area of Council Bluffs. The satellite new towns are not currently part of the Riverfront Land Use Plan. The Riverfront Program also delineates parks, open space areas, and parkways for leisure time enjoyment of the Missouri River and immediate vicinity.

MAPA/RIVERFRONT HOUSING AND COMMUNITY DEVELOPMENT TASK FORCE

25. This task force has adopted goals and objectives that impact on future land use including: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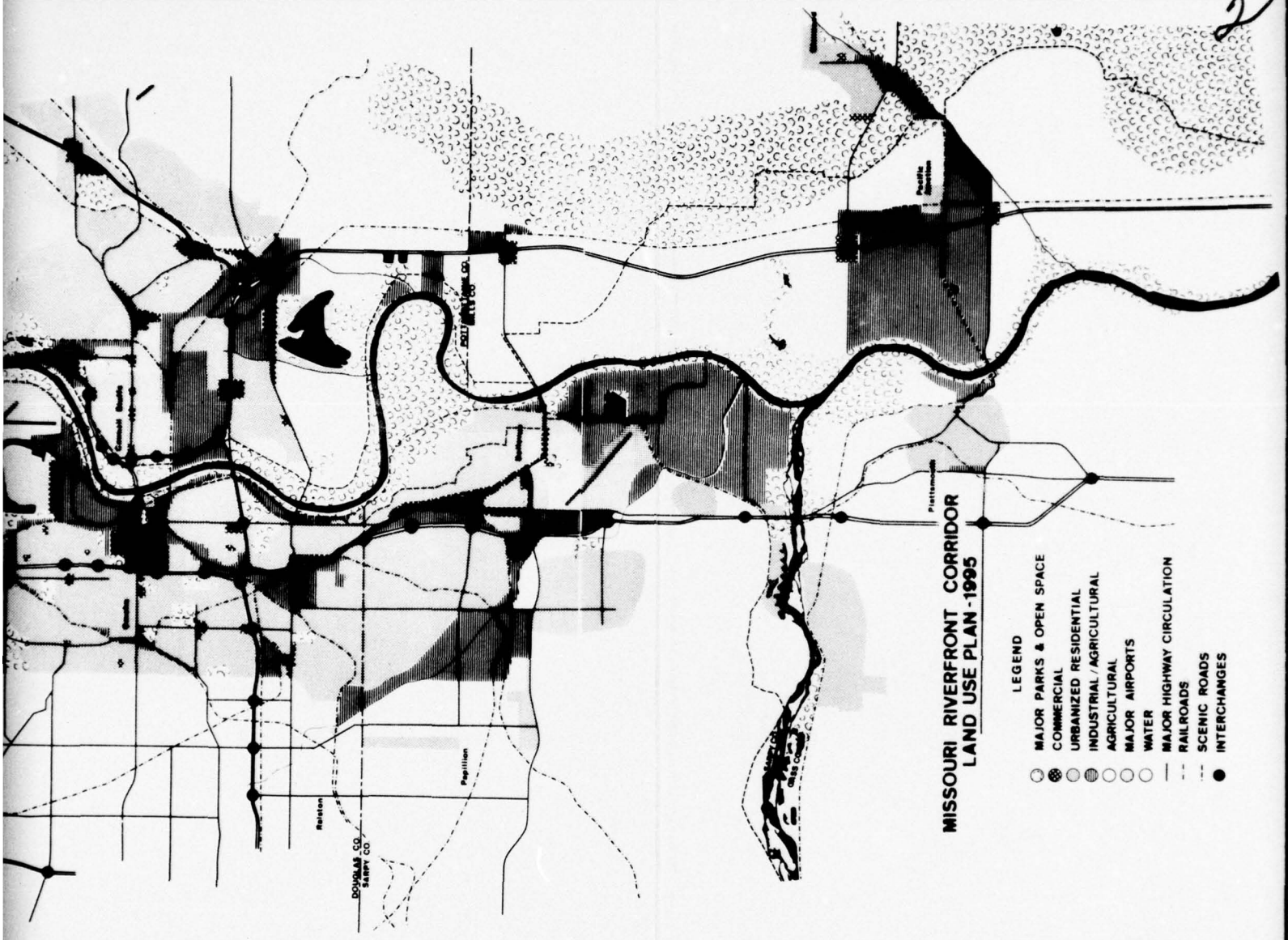
Port Calhoun
WASHINGTON CO.
DOUGLAS CO.
Crescent



METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA

MISSOURI RIVERFRONT CORRIDOR
LAND USE PLAN - 1995

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

JUNE 1975

VOLUME III ANNEX A FIGURE B-5

- Examining growth policies putting emphasis in redirecting growth into bypassed areas that have utilities and services.

- Place the trend toward large lot development in proper perspective by clarifying the relationships between residential lot size and costs of public services, changes in lifestyle, and transportation needs.

- Discourage residential development in areas having relatively low levels of public service.

MAPA CITIZENS ADVISORY BOARD AND GROWTH POLICIES COMMITTEE

26. Both these citizens' groups prefer a reduction in the amount of urban sprawl. Noting a lack of adequate control of urban growth, they indicate, "Our chief concern centers around the use of land. The need to control the use of our limited supply of land and open spaces becomes clearer when we realize that both are essential for man's spiritual growth and development." They have proposed that a professional study on the costs of growth be undertaken. This proposal was rejected by the MAPA Board of Directors. Members of both groups have openly supported Growth Concepts B or C as discussed in the next section.

CENTER FOR APPLIED URBAN RESEARCH

27. The Center, part of the University of Nebraska at Omaha, conducted a survey on urban sprawl, the results of which suggest that 60 percent of Omahans do not see sprawl as a problem and that 50 percent felt no greater controls should be placed on Omaha's growth.

The Director suggested that community officials should acquaint the public with the problems as well as the benefits of outward expansion. Those who favored control of growth were highly educated whites, those living in Omaha more than 5 years, and those with incomes of $20,000 or more.

28. Recent population figures from the Center for Applied Urban Research suggest that urban growth is continuing to the northwest and southwest along with declines in the central city. Since 1960, the population increase in northwest and southwest Omaha has nearly tripled.

29. The Director has recommended to the officials of the Riverfront Development Division that Omaha's future should be turned inward. He notes that undeveloped areas within the city are ripe for redevelopment and should be used.

30. He has indicated that the public should be made aware of what uncontrolled growth will do to taxes, air and water quality, social relationships, and other quality of life factors.

COUNCIL BLUFFS METROPOLITAN AREA PLANNING COMMISSION

31. The Commission in March of 1969 prepared a comprehensive regional urban area plan, as authorized by the Housing Act of 1954. In the future land use area, the Commission notes that "Anticipated future growth is general in nature", and envisions high concentrations of suburban residential development around the Council Bluffs urban area.

32. Thus, the Commission appeared to value or assume orderly but outward expansion. Currently, public officials in Council Bluffs are trying to decide whether to place priority on redevelopment or to encourage suburban expansion up the Mosquito Creek basin.

OTHER URBAN GROUPS

33. Numerous other groups are concerned about land use and the future of Omaha. For some, information is available about their past attitudes toward historical background in terms of Omaha land use, but not their goals for the city. For others, present goals of Omaha are known, but past background of city land use is not.

NORTHERN NATURAL GAS

34. Spokesmen for Northern Natural Gas suggest that rising energy costs will reduce horizontal urban expansion. People will want to be closer to the central city. So you'll see more apartments and condominiums close-in as opposed to single-family houses in the suburbs.

PEOPLES GAS OF COUNCIL BLUFFS

35. Peoples Natural Gas of Council Bluffs has introduced a new policy because of the tightening of gas supplies. The utility company will not increase its present network of mains or provide service to new subdivisions unless commitments have already been made. If this policy continues, urban expansion should be curtailed.

METROPOLITAN UTILITIES DISTRICT

36. The Metropolitan Utilities District since 1963 has offered lower cost to suburban developers to encourage the use of gas. MUD is responsible not only for the local distribution of gas, but

also water. Now their policy appears to have changed. Because of dwindling natural gas supplies, the use of gas is no longer encouraged to the same extent as it was in the early 60's. Today both water and gas hookups have an additional charge. It appears to some at city level government that the MUD policy may encourage developers to fill in inner city and fringe suburb areas.

37. On the other hand, MUD's Long Range Comprehensive Water System Master Plan (1972) envisions a rather low-density dispersion throughout the city with a projected gross density of 5.2 people per acre. In terms of projected acreage, by 2020 the total city area would be 167,200 acres, up 80,440 acres from 1970 level of 86,760 acres. MUD also envisions a considerable westward expansion.

OMAHA BUILDERS' ASSOCIATION

38. According to the head of the Omaha Builders' Association, the form of the city is an expression of consumer wishes. He notes, "Do developers put a gun to the heads of these people? If urban sprawl is so bad, why do the majority of Americans want it?" The Omaha Builders' Association sees "almost a conspiracy to stifle construction and incentive."

39. The Association sees city growth as the American way of life. They are very concerned about the limitations to the city's expansion and the impact that it would have on consumers.

OMAHA BOARD OF REALTORS.

40. This Association is interested that the consumer be served. They feel that the city's time zone concept "does not serve the interest of all the citizens of Omaha." The "creation of artificial

boundaries" may not adequately develop a city that is a real reflection of what people want. The traditional home must be defended. They also note that 60 percent of Omahans feel that "sprawl" is not a problem.

THE CHAMBER OF COMMERCE.

41. According to Chamber spokesman, "The city has grown well." It must continue to do so or Omaha cannot accomplish its goals, both economic and social. Growth means jobs. The Chamber has opposed the time zone concepts of the Omaha Planning Department. It wants controlled growth and incentives by the city to develop the inner city but not artificial boundaries.

42. To this organization, "Time Zones" would harm incentive and they feel that suburban growth should not be overregulated. Developers will go elsewhere, they say, if they are confronted with time zones, and "profit will attract developers."

QUALITY ENVIRONMENTAL COUNCIL.

43. The National Advisory Board to the Quality Environmental Council has opposed "unconstrained piecemeal urbanization." Among their recommendations, they urge all levels of government to buy open land for public preservation, amend tax laws to encourage land gifts, help organizations engaged in land preservations, and require developers to incorporate open preserves for the projects.

44. Locally, when choosing between "Westward ho" or "Stop and grow," the local leader said, "The city's growth to date has amounted to expansion and annexation. And nobody knows how to stop it. Good land use simply has not been considered."

SIERRA CLUB

45. The "Sierra Club" opposes horizontal urban expansion. Calling it a "tidal wave squeeze," the leader of the club notes that vital agricultural land is being consumed by the "Sprawl of development."

NEIGHBORHOOD ASSOCIATIONS

46. A group of neighborhood associations (the Country Club Community Council of Omaha; Field Club Homeowners League, Inc.; Elmwood Park Area Community and Schools Council; South Country Club Neighborhood Assn., and Southwest Civic Club, Inc.) appear also to be opposed to urban spread. When MAPA proposed an auto-dominated transportation network, the excerpt from an editorial in the Omaha World Herald stated, "If we continue the past into the future, we simply create more sprawl, the need for more streets and arterials, the need for more neighborhood destruction, the need for more automobiles to convey people over greater and greater distances, and a further mediocre fragmentization of our city into meaningless, repetitious, look-alike housing developments and look-alike shopping centers.

47. Omaha and its people deserve better than that, and they can get better than that."

LEAGUE OF WOMEN VOTERS

48. This organization is very concerned about land use and quality of environment. At the time of this writing, the League had read and studied the Corps' suggested four alternative growth concepts which are discussed in detail in Section D.

49. Generally, the League supports Concept "C", though its members expressed some reservations. The League also felt that a "no

growth" alternative should have been presented. Their analysis of the four growth patterns appeared to be extremely reasoned and raised frequent question about social and environmental costs of each alternative.

The Seven-County Area

50. Background and goals for the areas outside the urban area are discussed below from the perspective of the counties and larger communities. Generally, goals for these areas are not well defined. Population and land use data on each community in the study area are contained in section F attachments. State and local projections were used for the rural communities.

CASS COUNTY

51. Cass County is located to the south of the Omaha region in Nebraska. The Platte River divides the Cass-Sarpy borders on the north and the Missouri River defines its boundary on the east. It includes the communities of Alvo, Avoca, Eagle, Elmwood, Louisville, Murdock, Murray, Nehawka, Plattsmouth, Union, and Weeping Water.

52. A comprehensive plan to 1985 (Cass County, Plattsmouth, Weeping Water, and Louisville Planning Commission) was produced with special emphasis on Plattsmouth, Weeping Water, and Louisville. County population is expected to increase from 18,076 (1970) to 20,456 (1995) and 22,039 (2020). Total community acreage expansion in the

county would be about 1,000 acres through 2020. The majority of this growth is expected to take place in Plattsmouth.

PLATTSMOUTH

53. Suburban expansion of Plattsmouth is expected along with an expansion of the central business district and highway-oriented businesses. Population growth is expected to be up from 6,371 (1970) to 7,684 (1995) and 8,057 (2020).

DOUGLAS COUNTY

54. Douglas County is the largest Nebraska county in terms of population. It contains the city of Omaha and the communities of Bennington, Elkhorn, Valley, Waterloo, Ralston, Irvington, and Boys Town. The most recent Douglas County comprehensive plan was prepared in 1964.

55. The Douglas County Planning Commission adopted these values in its future land use projections, including:

- The future general growth patterns and development should provide a desirable and economical living environment for the promotion of the health, safety, morals, and general welfare of the people.

- The arrangement of land uses should provide convenient access to each other while maintaining adequate safeguards for maximum compatibility of different land uses.

- Sufficient land should be made available for the various types of land uses in locations which encourage compact and economical growth of existing urban areas.

- Encourage the orderly transition of rural agriculture lands to urban uses as growth takes place with provision for adequate safeguards for the remaining agricultural areas.

- Preserve naturalistic land features and areas for park and recreational uses.

- Preserve as open space those areas subject to flooding and not suitable for development.

56. The plan as envisioned spreads along the Omaha border to contain a lower density, down from 10 acres/100 people to 20 to 25 acres/100 people.

57. Under MAPA's 1971 Comprehensive Land Use Plan, urban land area in Douglas County was expected to increase by 46 percent at a medium density of 6.5 persons per residential acre. MAPA's COATS 1995 Land Use Plan shows less urban expansion but more population for Douglas County than did its 1971 Plan recognizing a trend to more apartment and condominium living. Currently, the rural communities in Douglas County appear to favor orderly expansion. All communities are close enough to be affected by Omaha's growth. Orderly expansion is desired by most.

BENNINGTON

58. Due to topography, Bennington may be limited in its expansion. MAPA (1971) notes however, the area may make a suitable location for a residential satellite city for Omaha. Under sprawl, Bennington is not thought to be encompassed by Omaha by 1995 but would be encompassed by 2020. The mayor of Bennington favors the satellite city alternative. Population growth is projected to

increase from 683 (1970) to 2,385 (1995) and 3,144 (2020). New subdivisions are currently forming around Bennington.

ELKHORN

59. Elkhorn should experience growth as a residential bedroom community. MAPA's 1971 projection of sprawl envelopes the area by 1995; but under the COATS 1995 plan, does not. Population of Elkhorn is expected to increase from 1,184 (1970) to 2,851 (1995) and 3,819 (2020).

RALSTON

61. Ralston's population is expected to increase from 4,731 (1970) to 6,254 (1995) and 6,715 (2020). Ralston's growth is confined, being currently bounded on three sides by the city of Omaha and on the south by Sarpy County.

VALLEY

61. The community of Valley is located in the Platte-Elkhorn flood plain and hence has some growth constraints. State projections indicate Valley's population will increase from 1,595 (1970) to 2,555 (1995) and 3,375 (2020).

WATERLOO

62. Although close to Omaha, Waterloo's potential for growth is inhibited by flood problems from the Elkhorn River. State projections indicate Waterloo's population will increase from 455 (1970) to 545 (1995) and 814 (2020).

PAPILLION CREEK AND TRIBUTATIES PROJECT

63. The project, currently under reevaluation, could significantly affect Douglas County land use. The original project involved

about 10,000 acres of Douglas County land out of a total of 214,400 acres. The reservoirs under urban sprawl, would become centers for residential development. Under controlled growth, they could serve as greenbelts around Metropolitan Omaha.

CONCLUSION

64. Currently adopted plans indicate that urban horizontal dispersion of an orderly nature is the goal of most communities in Douglas County. Fulfillment of these goals would make most of Douglas County urban in nature by 2020. Attempts are being made however, to alter land use plans within the county.

SARPY COUNTY

65. Sarpy County is south of the Omaha area. Its boundaries include Douglas County to the north, the Missouri River to the east, and the Platte River to the west and south. The county includes the communities of Springfield, Gretna, Papillion, Capehart - Offutt Air Force Base, Bellevue, and La Vista.

66. Sarpy County has a land use plan which was developed in 1972. The plan envisions urbanization of the northeastern quarter of the county with a mixture of land uses; a strip of residential and industrial uses along Interstate 80 to Gretna, a strip of industrial land use along I-80 from Gretna to the Platte River, residential and industrial development around Springfield, and industrial/residential land uses in the southeastern portion of the county. The plan envisions primarily light to medium residential density spread. Under both Sarpy County's and MAPA's plans, the cities of Bellevue. Papillion, and La Vista will have contiguous boundaries. Gretna and Springfield will remain separated from other urban areas.

BELLEVUE

67. Bellevue is the largest community in Sarpy County. Population growth is projected to increase from 21,953 (1970) to 59,941 (1995) and 77,125 (2020). Bellevue growth is expected to occur primarily to the west and the north. Medium residential densities with some industrial land use are generally projected in the Papillion Creek flood plain. A consultant's report indicates that Bellevue will expand by 6,724 acres to a total of 16,000 acres by 1995.

LA VISTA

68. La Vista's population is expected to increase from 4,807 (1970) to 11,672 (1995) and 17,714 (2020) due to its proximity to the growth of Omaha. La Vista's growth potential is confined by Bellevue on the east, Papillion on the south, Douglas County on the north, and a large industrial tract to the west. Growth will be primarily of the medium density type residential. La Vista's planning area of over 4,000 acres is expected to be completely developed by 1995.

PAPILLION

69. The growth of Papillion is envisioned to increase in all directions, spreading outward from the original community. Population growth is expected to increase from 5,606 to 17,187 (1995) and to 23,318 (2020). Medium residential density is envisioned, with industrial development along the Papillion Creek flood plain.

GRETNA

70. Gretna's residential growth is projected to spread eastward toward Interstate 80. The County Land Use Plan indicates medium

residential development within the current zoning jurisdiction and low density development beyond to I-80. Population is projected to increase from 1,557 (1970) to 7,365 (1995) and 13,208 (2020). A long strip of industrial development is predicted to the southwest of Gretna.

SPRINGFIELD

71. Springfield is projected to grow primarily to the west and north with an industrial tract to the south. Population is expected to increase from 795 (1970) to 3,378 (1995) and 7,093 (2020). Medium residential densities are envisioned within Springfield's 3-mile jurisdiction with light densities beyond.

CAPEHART

72. Capehart's 1968 population of 5,420 and its 367 acres of residential land are presumed to remain static during the planning period through the year 2020.

OFFUTT AIR FORCE BASE

73. Offutt Air Force Base is subject to physical and economic changes directed by the Federal Government in response to international situations. These changes are impossible to predict on a long-range basis; therefore, it is assumed that the installation will remain its present size and configuration during the planning period (to 2020) and will not require changes in land use.

PAPILLION CREEK AND TRIBUTARIES PROJECT

74. The proposed Papio dam sites will affect Sarpy County land use in a fashion similar to Douglas County. Dam sites 19, 20, and 21 would require about 2,800 acres or 1.8 percent of total county lands.

SARPY COMPREHENSIVE DEVELOPMENT PLAN

75. Sarpy County is currently preparing a Comprehensive Development Plan for the year 2000. Total land use for urban purposes is expected to increase from 18,316 acres (1970) to 41,700 acres (2000). Based on a year 2000 population of 179,910, Sarpy County's consultant projects residential densities for new areas at 10 percent at 2 units per acre, 60 percent at 5 units per acre, 20 percent at 8 units per acre, and 10 percent at 12 units per acre. These figures represent a general increase in residential densities over the above described plan.

WASHINGTON COUNTY

76. Washington County is located north of Douglas County and is bounded by the Missouri River on the east. The county includes the communities of Arlington, Fort Calhoun, Herman, Kennard, and the largest town, Blair. The most recent land use plan for Washington County was prepared in 1970. This plan foresaw additional urbanization of approximately 2,200 acres in the southeastern portion of the county. Population growth for the county is expected to increase from 13,310 (1970) to 17,802 (1995) and 18,847 (2020) based on State projections. The State projections do not indicate that growth will occur as in Washington County's 1970 plan, but will occur in the communities of Blair and Fort Calhoun.

BLAIR

77. The Comprehensive Development Plan for Blair (1968) envisioned a revitalized central business district and a curtailment of scattered growth. Population for Blair is expected to increase from 6,106 (1970) to 9,343 (1995) and 10,343 (2020).

FORT CALHOUN

78. Located between Omaha and Blair, Fort Calhoun has growth potential. State projections indicate Fort Calhoun's population will increase from 642 (1970) to 1,353 (1995) and 1,708 (2020).

PAPILLION CREEK AND TRIBUTARIES PROJECT

79. The Papio Valley Preservation Society is opposed to the creation of Papio dam sites 1, 2, 3, and 4. The Society feels that acreage removed would harm the economy of local communities. The sites and recreational areas would account for 8,508 acres, or 3.4 percent of the total county acreage. The strongest concern for preservation of agricultural land has come from residents of Washington County.

HARRISON COUNTY

80. Harrison County in Iowa has a Comprehensive Plan, developed in 1971, and individual development plans for each community. Communities in Harrison County are Dunlap, Little Sioux, Logan, Magnolia, Mondamin, Missouri Valley, Modale, Persia, Pisgah, and Woodbine. Population growth is projected to increase from 16,240 (1970) to 16,847 (1995). This increase is projected to require only an additional 115 acres.

81. Harrison County Regional Planning Commission's goals include: Control scattered development, protect agricultural land, develop Missouri River potential, develop land for open space and recreation, and adopt land use controls.

82. Due to its proximity to Omaha and good transportation access, Missouri Valley is considered to have satellite city potential.

MILLS COUNTY

83. Mills County is a western Iowa county bordered by Pottawattamie County to the north and the Missouri River on the west. It includes the communities of Emerson, Glenwood, Hastings, Henderson, Malvern, Pacific Junction, Silver City, and Tabor. Mills County population is projected to decrease from 12,500 (1970) to 12,000 (1995) and 11,400 (2020). The largest community, Glenwood, population 4,421 (1970) is considered to have some satellite city potential and is projected locally to have a 1995 population of 6,800 and a 2020 population of 8,892. This large population increase is not incorporated in the county totals, but is assumed under satellite city development.

POTTAWATTAMIE COUNTY

84. Pottawattamie County, Iowa is bordered on the west by the river, on the south by Mills County, and on the north by Harrison County. Its largest community is Council Bluffs. It also includes the communities of Avoca, Carson, Crescent, Hancock, Macedonia, Minden, Neola, Oakland, Treynor, Underwood, and Walnut. The population for Pottawattamie County is expected to increase from 86,991 (1970) to 93,610 (1990) according to the State Office of Planning and Programming. MAPA's projection for 1990 indicates about an additional 10,000 over the State's projection.

85. In an earlier report the County Board of Supervisors appeared to favor horizontal expansion. The Board stated, "It would appear that the interest of the county, relative to residential expansion from Council Bluffs, would be served by facilitating growth in the areas north, northeast, and east of the city. . ." The revised future land use plan proposes the establishment of suburban

residential districts in the county area, particularly in relation to anticipated expansion of various small communities and Council Bluffs.

86. The Board of Supervisors is currently working on model regulations concerning county land use. In these regulations the Board appears to be favoring a policy of orderly suburban expansion with a curtailment of scattered growth.

COUNCIL BLUFFS

87. Most of the growth projected for Pottawattamie County is expected to take place in Council Bluffs. Growth north, northeast, and east of the city appears to be favored particularly up the Mosquito Creek Valley. Growth to the south is not favored locally due to high ground water conditions. Also, officials of Council Bluffs are trying to determine whether to emphasize urban redevelopment or suburban expansion.

CRESCENT

88. Crescent, Iowa is in a prime location for future development. Its proximity to Interstate 29 provides ready access to the Council Bluffs and Omaha areas. As the Interstate 680 loop is developed, Crescent will be ideally located for residential-type community growth, possibly as a satellite city. Population is expected to increase from 299 (1970) to 410 (1995) and 560 (2020).

CARTER LAKE

89. A comprehensive plan has been developed for Carter Lake, Iowa. This plan projects an ultimate population of 8,500 and an additional 639 acres to provide for the increase in population. It is thought that the area has good residential potential if the

riverfront program is successful. Carter Lake is actually located on the west side of the Missouri River.

TREYNOR

90. Treynor, Iowa has experienced a population increase of 35 percent in the last eight years, and is projected to more than double by 1995. This increase is primarily due to the influence of Highway 92 which provides a quick route into the Council Bluffs area. Population is expected to increase from 577 (1970) to 1,350 (1995) and 1,929 (2020).

OTHER POTTAWATTAMIE COMMUNITIES

91. The other communities in Pottawattamie County are expected to remain stable or to exhibit modest population increases over the planning period as indicated in section F attachments.

An Overview

92. Questions were raised early in this chapter about the nature of the values of numerous groups in terms of their perception of land use and growth.

93. For the urban areas, there is controversy between those who favor free-market land expansion and those who support community regulated growth.

94. In the wider seven-county areas, numerous comprehensive plans value orderly growth and assume that growth should occur - horizontally.

95. This chapter has tried to portray the various projections and alternatives presented by other groups in the study area. All these plans were reviewed when the decision was made to develop the alternative concept model.

SECTION C

THE ALTERNATIVE MODELS CONCEPT USED FOR THE URBAN STUDY

THE ALTERNATIVE MODELS CONCEPT USED FOR THE URBAN STUDY

TABLE OF CONTENTS

Item	Page
INTRODUCTION	C-1
FORMULATION OF THE ALTERNATIVE MODELS	C-2
LAND USE	C-2
POPULATION GROWTH	C-3
POPULATION ALLOCATIONS	C-5
POPULATION DENSITIES	C-7
DESCRIPTION OF THE ALTERNATIVE MODELS	C-9
GROWTH CONCEPT A	C-9
GROWTH CONCEPT B	C-11
GROWTH CONCEPT C	C-13
GROWTH CONCEPT D	C-14
USE OF THE ALTERNATIVE MODELS	C-15
WASTEWATER MANAGEMENT	C-15
WATER SUPPLY	C-17
RECREATION	C-17
FLOOD MANAGEMENT	C-17

TABLE OF CONTENTS (Cont'd)

LIST OF TABLES

No.	Title	Page
C-1	POPULATION PROJECTION COMPARISONS FOR THE SEVEN-COUNTY AREA	C-4
C-2	RELATIVE POPULATION DENSITIES	C-8
C-3	NEW RESIDENTIAL DEVELOPMENT DENSITY	C-8
C-4	POPULATION PROJECTIONS CONCEPT "B"	C-13

LIST OF FIGURES

No.	Title	Follows Page No.
C-1	ALTERNATIVE GROWTH CONCEPT A	C-9
C-2	ALTERNATIVE GROWTH CONCEPT B	C-11
C-3	ALTERNATIVE GROWTH CONCEPT C	C-13
C-4	ALTERNATIVE GROWTH CONCEPT D	C-14
C-5	REGIONAL WASTEWATER MANAGEMENT PLAN 1	C-16
C-6	REGIONAL WASTEWATER MANAGEMENT PLAN 2	C-16
C-7	REGIONAL WATER SUPPLY PLAN I	C-17

TABLE OF CONTENTS (Cont'd)

LIST OF FIGURES

No.	Title	Follows Page No.
C-8	REGIONAL WATER SUPPLY PLAN II	C-17
C-9	REGIONAL WATER SUPPLY PLAN III	C-17
C-10	REGIONAL WATER SUPPLY PLAN IV	C-17

SECTION C

THE ALTERNATIVE MODELS CONCEPT USED FOR THE URBAN STUDY

Introduction

1. As noted earlier, due to the controversy and mixed desires of numerous groups, this study used the alternative models concept for its urban water resources planning. In general, it is assumed that how people are distributed on the land is the key factor to the development of land patterns, water and sewer systems, use of water resources, and the need for flood control.

Formulation of the Alternative Models

LAND USE

2. From the information gained by the Dana College study, from public involvement, from the goals of various agencies and groups, and from urban planning theory, four alternative futures were formulated. The most current land use plans, such as the MAPA-COATS 1995 Land Use Plan, and the land use plan used by the Metropolitan Utilities District in 1972 were used to forecast Growth Concept A of horizontal spread.

3. Three additional alternatives were formulated to bracket the possible range of growth alternatives for the Omaha-Council Bluffs area. Growth Concept B was formulated based on the 1970 goals of the MAPA Council of Elected Officials, the new towns envisioned under the Riverfront Development Program, current planning efforts by Sarpy County, and the expressed wishes of individual communities around Omaha. Federally subsidized mortgages, available only in communities of less than 20,000 population, have already been responsible for substantial growth in and around the satellite communities.

4. Growth Concept C, representing planned higher-density growth, was formulated based on desires for preservation of farmland, efficiency of public services, current annexation and growth policies of the city of Omaha, and the goals of organization described earlier.

5. Growth Concept D, representing horizontal spread along transportation corridors was formulated as an alternative to Concept A. This concept was formulated as a "what-could-happen" alternative suggested by several community leaders.

6. Concept D has since gained some support as a preferred alternative over Concept A, primarily because of confinement of growth/sprawl to transportation corridors.

POPULATION GROWTH

7. All four alternative growth concepts were formulated using the same 1995 and 2020 population projections. Available population projections range from 733,500 to 989,450 for 1995, and from 877,900 to 1,578,900 for 2020. Population figures selected by county, are indicated on table C-1. The 1995 projection for the SMSA is identical to that used in MAPA's 1995 transportation plan and represents the Bureau of the Census or OBERS Series "C" projection with local modifications. The 2020 projections for the SMSA are based on an analysis of local and national projections approximating Bureau of the Census or OBERS Series "C". Available State or local projections were used for the counties outside the SMSA.

8. For Cass and Washington Counties the Nebraska Office Of Planning and Programming's medium projections were used. These projections are based on Bureau of Census Series "E" projections. Additional population was allocated to the counties for the satellate cities of Blair and Plattsmouth for Concept B.

Table C-1
Population Projection Comparisons for the Seven-County Area
(Thousands)

	SMSA Counties				Non-SMSA Counties							
	Douglas	Sarpy	Pottawat-tamie	SMSA Total	Cass	Washington	Harrison	Mills	Study Region Total	Iowa	Nebraska	U.S.
1970 Census	389.5	66.2	87.0	542.6	18.1	13.3	16.2	12.5	602.8	2825.	1483.	203212.
1995 Concepts												
A	533.4	215.4	102.1	850.9	20.6	17.8	16.8	12.0	918.0	3494.	1818.	288270.
B	515.8	176.8	102.6	795.1	32.9	42.1	22.9	24.9	918.0			
C	581.7	167.1	102.1	850.9	20.6	17.8	16.8	12.0	918.0			
D	523.5	225.3	102.1	850.9	20.6	17.8	16.8	12.0	918.0			
2020 Concepts												
A	650.2	260.7	123.5	1034.5	21.5	19.3	17.7	11.4	1104.5	4672.	2354.	399013.
B	635.0	220.2	115.4	970.6	33.5	52.2	23.4	24.8	1104.5			
C	686.5	228.5	119.5	1034.5	21.5	19.3	17.7	11.4	1104.5			
D	619.3	288.2	126.9	1034.5	21.5	19.3	17.7	11.4	1104.5			

Note: Totals may not add due to rounding.

9. For Harrison and Mills Counties population projections to the year 1990 were supplied by the Iowa Office of Planning and Programming and used as a guide to develop the 1995 and 2020 projections. Additional population was allocated to the counties for the satellite cities of Missouri Valley and Glenwood for Growth Concept B.

10. It should be recognized that while this study used a locally modified Series "C" projection for the urban area, there is a trend toward lowering the projection to the Series "E" level. MAPA has recently adopted a Series "E" projection for the SMSA and modified it to a 1995 projection of 772,862 or slightly in excess of Bureau of the Census Series "C" projections. Extrapolation of MAPA's current adopted projections to 2020 would result in a SMSA population in excess of 1,000,000.

11. Since population projections are subject to frequent change, future revisions of this study should incorporate the then current population projections.

POPULATION ALLOCATIONS

12. Table C-1 indicates the population allocations to each county by growth concept. For Concept A, population allocations from MAPA's 1995 transportation plan were used and extrapolated to 2020 to provide the allocations of the total SMSA population projection between Douglas, Sarpy, and Pottawattamie Counties. Populations indicated for the four rural counties follow the respective State's projections.

13. For Concept B, population growth was dispersed from the urban area to primary existing rural communities. The population given to each satellite city was based on land and water availability, nearness to Omaha-Council Bluffs, ease of transportation access, current population base and economic activity, and growth potential as projected by State and local agencies. The dispersion of population to rural growth centers causes the rural county projections to increase significantly with a lesser population projection forecasted for the SMSA counties.

14. Concept C envisions fill-in of vacant land areas, restoration of blighted areas, and a reduction in horizontal spread. Most of the fill-in and restoration occurs in Douglas County. Fringe growth was assumed to occur at twice the residential density as projected under Concept A. The end result of the allocation process for Concept C is that Douglas County would accomodate more growth and Sarpy County less growth than under Concept A. Pottawattamie County's and the rural counties' projections are similar or identical to those under Concept A.

15. Concept D follows essentially the same population allocation as under Concept A except that major transportation routes are assessed to influence land development patterns. Interstate 80 to the southwest of Omaha and the planned Omaha-Fremont expressway to the northwest of Omaha are the primary conditions of concern. The current growth trends of Omaha are to the southwest along existing I-80. This growth trend is also influenced by the city of Lincoln, Nebraska (1995 projected population of 223,700) located approximately 45 miles southwest of Omaha. With the I-80 dominating,

Sarpy County will accommodate more population and Douglas County less population than under Concept A. Pottawattamie County would experience a slight increase over Concept A due to the influence of Interstates 80 and 29. The rural counties remain the same as under Concept A.

16. The most significant factor in Pottawattamie County's growth is the growth of Council Bluffs. Table C-1 indicates little variance in population projections for Pottawattamie County under the four growth concepts. Drainage and high ground water problems in the Missouri River flood plain on the west side of Council Bluffs, highly erodable loess bluffs to the north and east present physical constraints to growth. Stated simply, Council Bluffs does not have a good place to grow and is therefore limited in growth alternatives.

17. Population allocations to each county were disaggregated to census tract, precinct, or community level as appropriate. These allocations are contained in tables F-1 and F-2.

POPULATION DENSITIES

18. New residential growth from the present to 1995 and from 1995 to 2020 was examined by MAPA Housing Study Area for each growth alternative and estimates of the division of new housing among high, medium, and low density groupings were made. Population densities assumed in each of the three groupings in terms of people-per-acre of residential development are given in table C-2.

Table C-2
Relative Population Densities

Grouping	Population Density (People/residential acre)
Low	Less than 7
Medium	7 to 18
High	More than 18

Portions of new growth assigned to each density grouping are listed by growth concept in table C-3.

Table C-3
New Residential Development Density

Growth Concept	Relative Density Year	Low	Medium (Percentage)	High
A	1995	43	36	21
	2020	43	37	20
B	1995	22	35	43
	2020	15	38	47
C	1995	17	31	52
	2020	15	36	49
D	1995	37	39	24
	2020	42	38	20

19. All four concepts allow for a mix in new growth population density. Under Concepts A and D the largest percentage of development would occur at low and medium densities. Under Concepts B and C the largest percentage would run under medium and high densities.

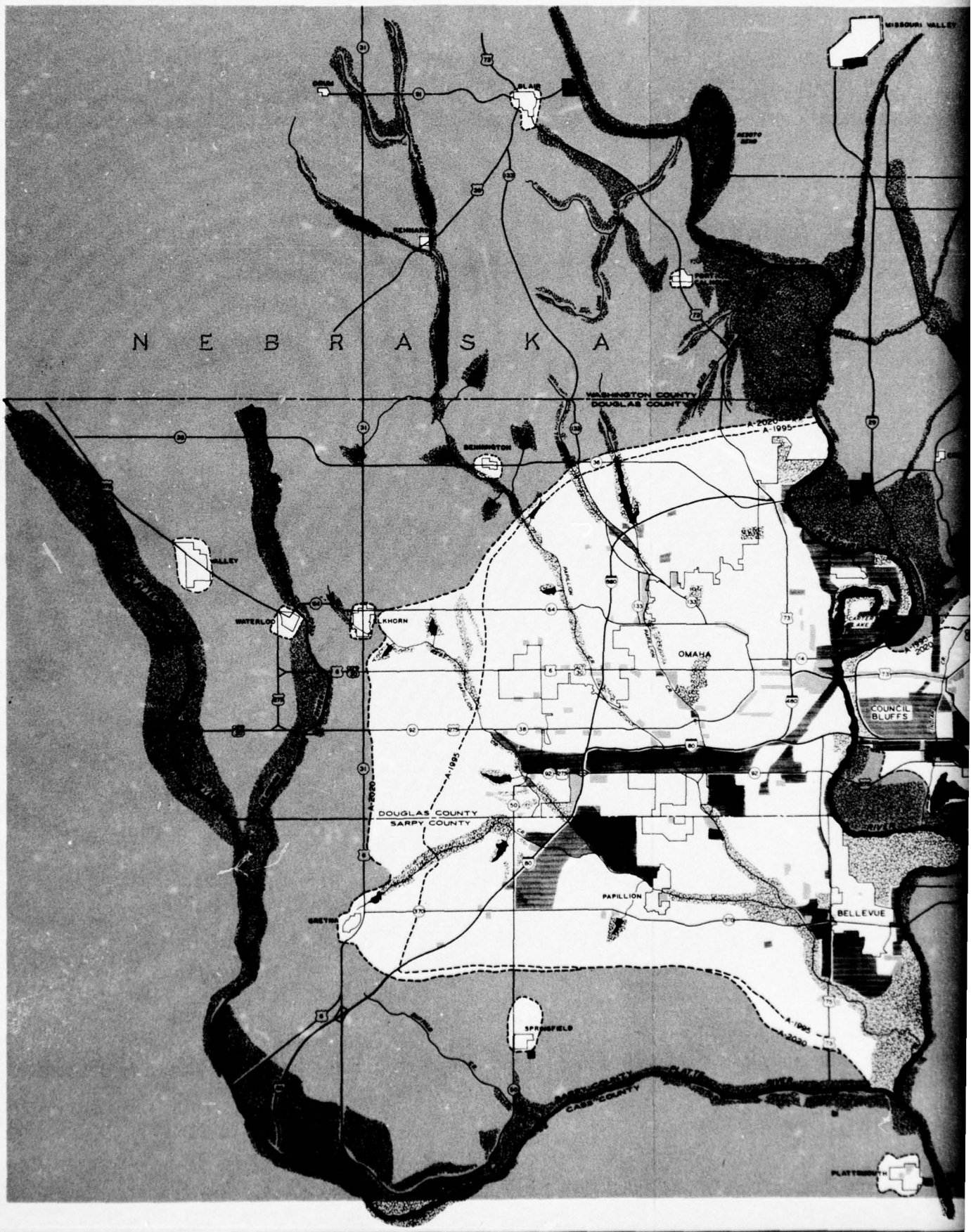
Description of the Alternative Models

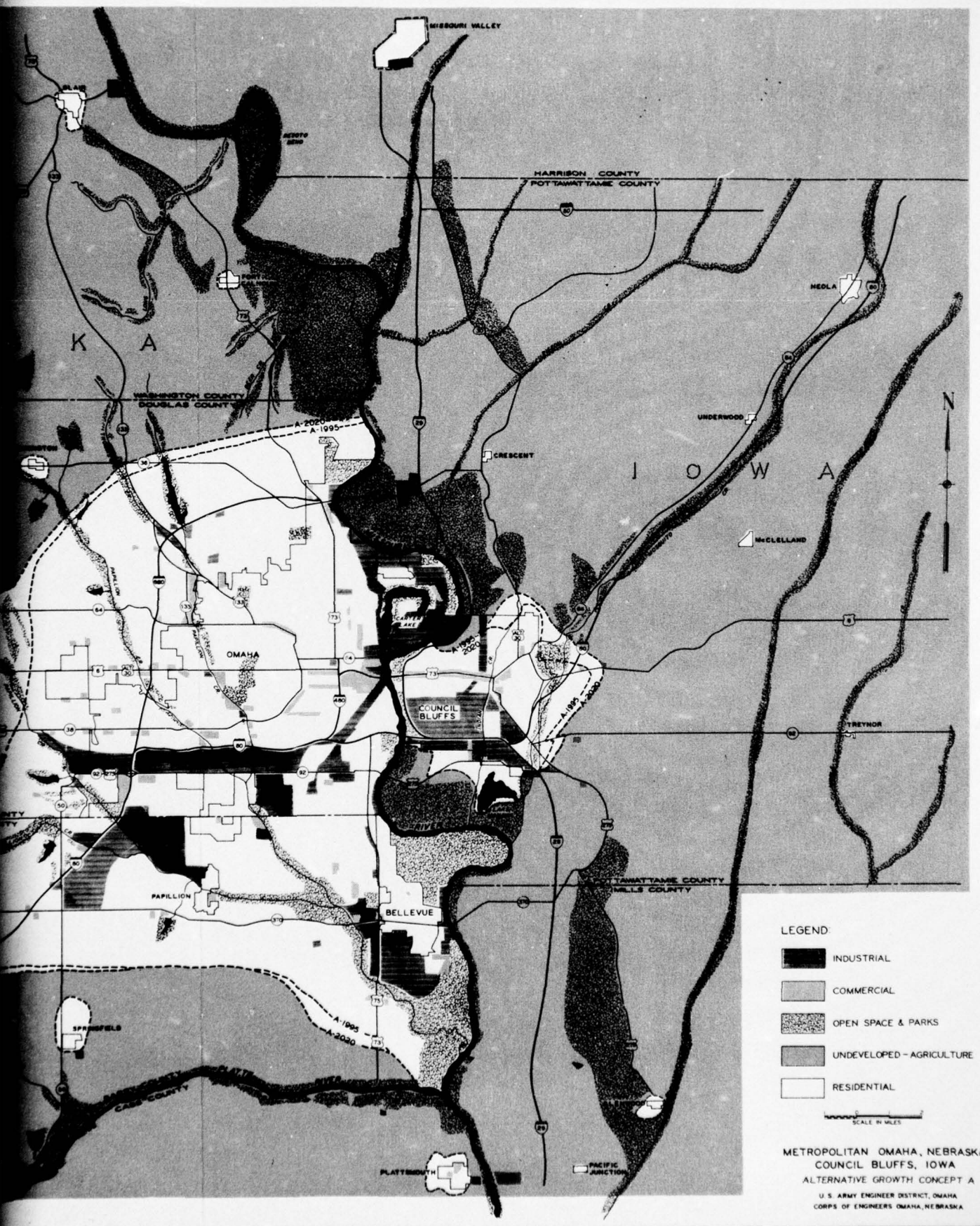
GROWTH CONCEPT A

20. This growth concept, illustrated in figure C-1, represents a continuation of present trends in land use. Dana College characterized this concept as a "Super-Industrial State" wherein political, economic, and other forces encourage continued suburbanization of the Omaha-Council Bluffs area. In the absence of a growth policy this concept is the "most-likely-to-happen" growth alternative, with a continuing decay of the urban core.

21. Concept A is characterized by low density growth, with resididential development density of from 1 to 9 persons per acre. To develop this concept the population allocations used in MAPA's 1995 transportation plan were duplicated and extended to indicate what the growth pattern would look like in 1995 and 2020.

22. Concept A's urban sprawl pattern is a compromise between the MAPA Comprehensive Land Use Plan adopted in 1971 and the Metropolitan Utilities District's land use plan for water supply master planning developed in 1972. The MAPA plan estimated a density slightly lower than Concept A, whereas the latter plan estimated slightly higher densities. This concept may represent the most inefficient growth pattern where the use of land and the provision


NEBRASKA
BLAIR
WASHINGTON COUNTY
DOUGLAS COUNTY
BENNINGTON
VALLEY
WATERLOO
ELKHORN
OMAHA
COUNCIL BLUFFS
A-1995
A-2020
DOUGLAS COUNTY
SARPY COUNTY
PAPILLION
BELLEVUE
SPRINGFIELD
CASS COUNTY
PLATTSMOUTH



METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA
ALTERNATIVE GROWTH CONCEPT A

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

VOLUME III ANNEX A FIGURE C-1

of public services are concerned. Residential, commercial, and industrial land required under Concept A would total about 72,000 additional acres by the year 2020. Most of this land is presently being used for agricultural production.

23. For many, Concept A represents the "American dream" of having a house on a lot large enough to afford some privacy. The growth pattern can be "planned" so that development takes place in an orderly fashion in contrast to the haphazard "leap-frogging" of today's urban growth.

24. With Concept A, the Riverfront Development Program's goal of redirecting growth to the inner city is assumed to fail.

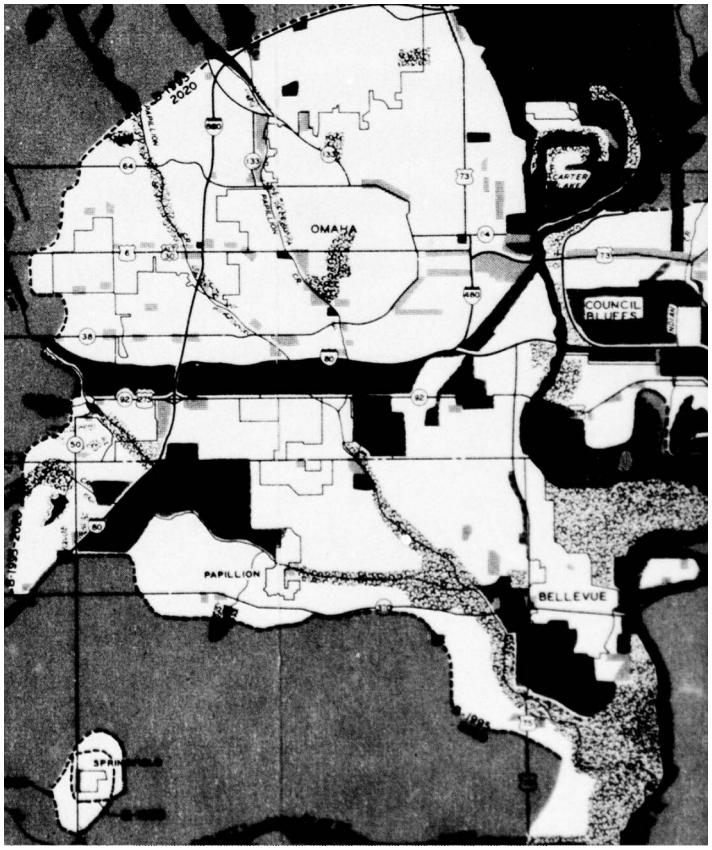
GROWTH CONCEPT B

25. Concept B, illustrated in figure C-2, envisions controlled expansion of urban Omaha, with emphasis placed on encouraging higher density residential development, revitalizing the urban core, and developing satellite cities based on existing communities located around the fringes of the metropolitan area.

26. The Dana College report described this growth alternative as the "Green Revolution". Small cities, and possibly some new communities, separated by open country from metropolitan Omaha, characterize this concept.

27. For growth in and connecting to metropolitan Omaha, population densities of from 10 to 15 people per acre were used. In contrast growth in the satellite communities and new towns was considered to be at a planned high density of 30 persons per acre.

28. A satellite city is one which is self-sufficient, with adequate economic activity to provide job opportunities. In Concept B, the communities of Blair, Ft. Calhoun, Bennington, Elkhorn, Gretna, Springfield, and Plattsmouth, Nebraska, and Missouri Valley and


2020
OMAHA
COUNCIL BLUFFS
PAPILLION
BELLEVUE

I O W
COUNCIL BLUFFS

Glenwood in Iowa are envisioned as satellite communities. Population projections for these "satellites" are shown in table C-4. The Riverfront Development Program's "New Towns" are incorporated in Concept B. This growth pattern assumes substantial redevelopment of older sections of Omaha-Council Bluffs, which is a goal of the Riverfront's "New Towns-In-Town" concept. The additional Riverfront satellite New Towns and their locations are: (1) Deer Creek located southeast of Fort Calhoun, Nebraska; and (2) East of Bellevue located on the Iowa side of the Missouri River opposite Bellevue, Nebraska. A relatively low population of 7,000 was assigned to each of the New Town sites due to the current low level of acceptance of the New Towns in the counties affected.

29. Concept B is attractive for a number of reasons. The first, if Concept B were to develop with the population densities discussed previously, additional land required for urban development to the year 2020 would be less than half the 72,000 acres required for Concept A.

30. Second, having their own industry for a tax base, existing small communities close to Omaha could grow while at the same time remaining independent of Omaha.

31. A third advantage of Concept B is the potential for reduction in transportation costs. If satellite cities were self-sustaining with regard to employment, great numbers of workers would not have to travel 10 to 15 miles to their jobs. Even if the satellites were not self-sustaining, the compact nature of the satellites concept might make mass transit to and from metropolitan Omaha more feasible.

32. The satellite cities concept would be difficult to implement. The suburban growth around Omaha would have to be curbed; industrial employment opportunities would have to be directed toward the satellite cities. Most of the smaller communities are presently not prepared to accommodate the growth envisioned. New Towns would require the establishment of governmental structures and the construction of all of the facilities needed to provide total services to a community. The problems associated with the construction of a New Town would not be insurmountable, but they would pose numerous difficulties.

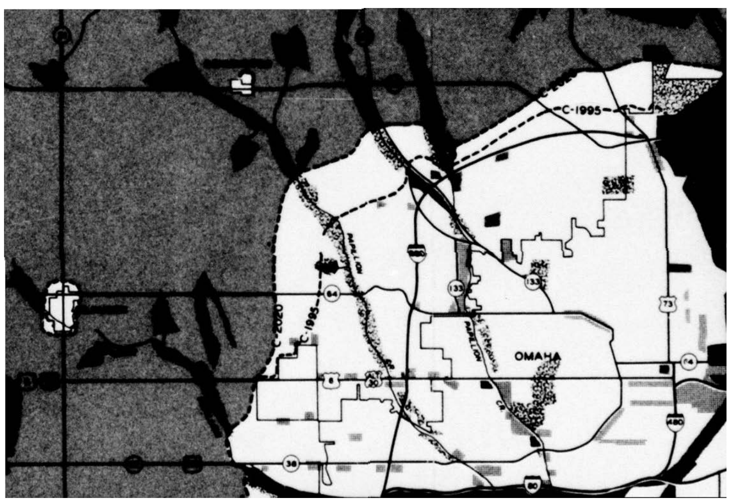
Table C-4

Population Projections Concept "B"

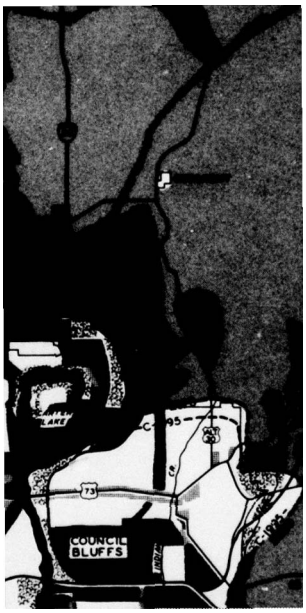
City	1974	As Rural Cities 2020	As Satellite Cities 2020
Valley	1,595	3,325	6,000
Springfield	795	7,093	25,000
Gretna	1,557	13,208	35,000
Elkhorn	1,184	3,819	22,500
Blair	6,106	10,393	30,000
Ft. Calhoun	642	1,708	8,000
Bennington	683	3,144	22,500
Plattsmouth	6,371	8,057	20,000
Glenwood	4,421	6,312	10,000
Missouri Valley	3,519	6,059	10,000

GROWTH CONCEPT C

33. Concept C, illustrated in figure C-3, is similar to Concept B but it does not include the satellite cities. Dana College described this concept as the "Restoration Society"; it is characterized by redevelopment of the older areas of Omaha and Council Bluffs coupled with higher-density growth on the urban fringes. The urban area would be more compact than under Concept A. New and redeveloped areas under Concept C were projected at double the density of Concept A.



C-1995
C-2020
C-1995
PAPILLION
OMAHA
64
133
133
73
6
38
80
480


COUNCIL
BLUFFS

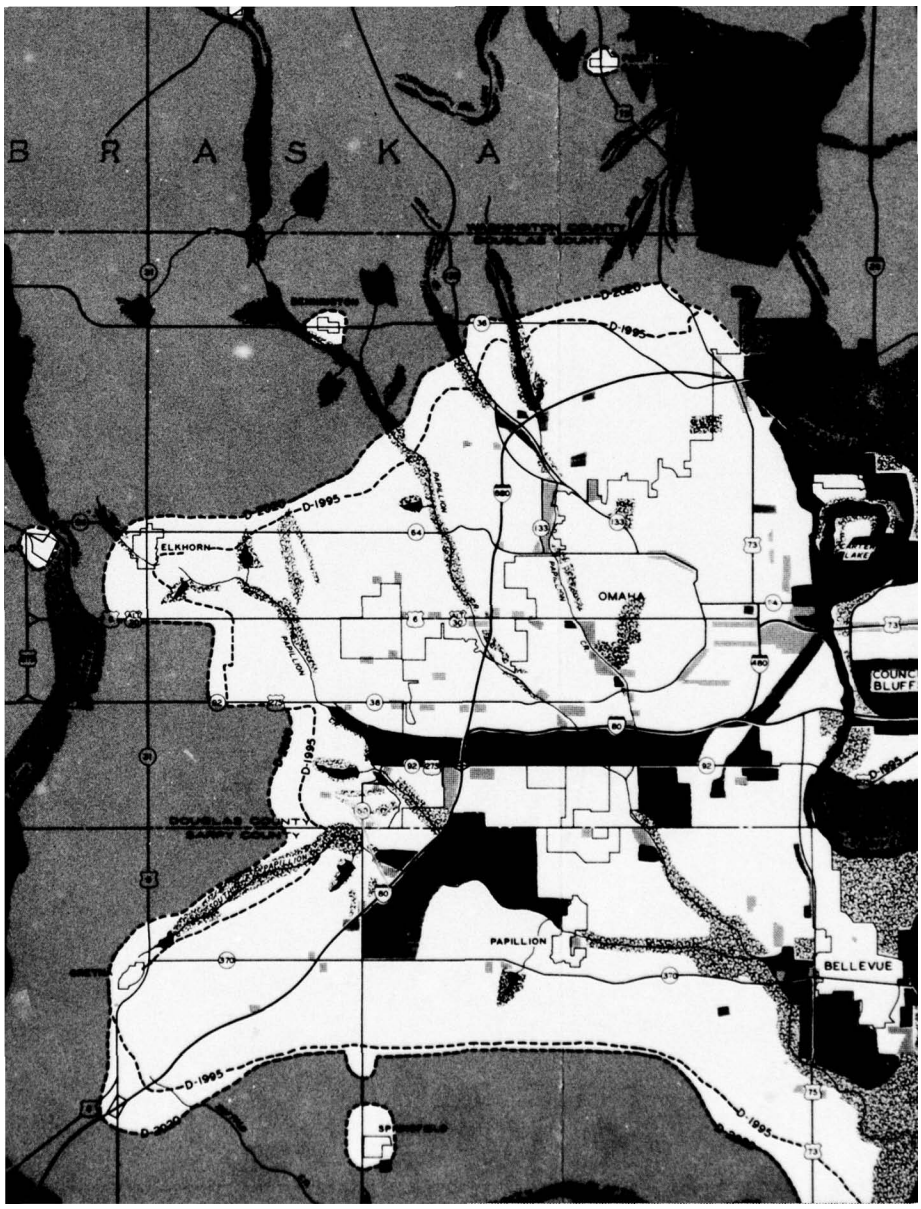
34. Concept C includes the New Town-In-Town segment of the Riverfront Development Program. But the Satellite New Towns of Deer Creek, Nebraska and East of Bellevue, Iowa are not included. Existing smaller communities are assumed to grow at a rate projected by local and State agencies. A growth pattern similar to Concept C is being studied as an alternative to urban sprawl in MAPA's Transportation Planning for the year 2000.

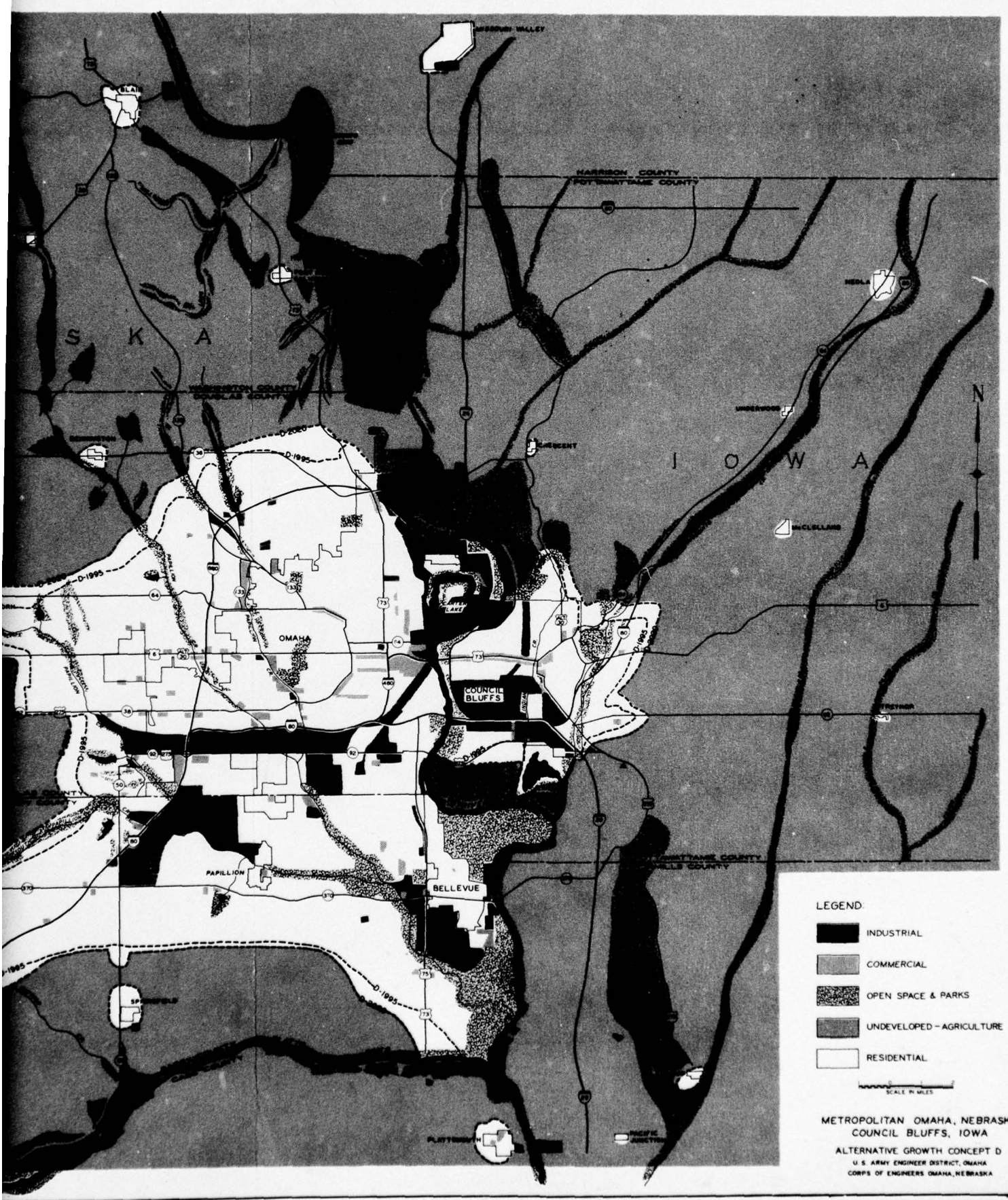
35. Additional land required for urban use would be on the order of 43,000 acres by 2020. Development would be more compact, and fewer miles of streets and utility lines would be required; thus public services could be provided at less expense.

36. This concept reflects a potential for energy conservation. With development confined to a more compact area, the distances to work and to shopping areas would be considerably less. Since such trips are made daily, the savings in energy resources over a period of time could be significant. The higher density of population would make mass transit more practical. It is estimated that Concept C could save at least $9,000,000 a year in transportation costs as compared with Concept A. A higher density population would mean some loss of individual privacy. Although the Omaha-Council Bluffs Metro area would see more use made of cluster, condominium, and apartment housing, proper planning and design could assure a reasonable degree of privacy.

GROWTH CONCEPT D

37. Concept D, illustrated in figure C-4, is similar to Concept A, except that it assumes substantial development will occur finger-like


B R A S K A
D-1995
ELKHORN
OMAHA
PAPILLION
BELLEVUE
DOUGLAS COUNTY
SARPY COUNTY



VOLUME III ANNEX A FIGURE C-4

along major transportation corridors. Major transportation corridors along which this development could occur are: (1) Interstate 80 to the southwest of Omaha and northeast of Council Bluffs; (2) the proposed Omaha-Fremont freeway to the northwest of Omaha; and (3) the Kennedy Freeway and the planned Highway 73-75 expressway to the south of Omaha.

38. Because Concept D envisions a sprawl pattern, population densities used in developing it were similar to those used in Concept A. Additional land required for urban use is estimated to total 71,000 acres by the year 2020. Most of the beneficial and adverse characteristics attributed to Concept A apply also to Concept D. Public service costs and efficiency are almost identical to Concept A. The one difference would be in transportation systems. Since people would live closer to major transportation arteries, ease of access would be improved. Also the possibility of developing a mass transit system may be increased due to the higher density of population along the corridors.

Use of the Alternative Models

WASTEWATER MANAGEMENT

39. Under Section 208 of the Federal Water Pollution Control Act Amendments of 1972 (PL 92-500), land use-water quality relationships must be defined. The following questions are to be addressed:

- Is this model the optimum development pattern for water quality?

- Could the number and magnitude of wastewater discharges be reduced if the development pattern were changed?

- Will the location of wastewater discharges have an adverse impact on water quality?

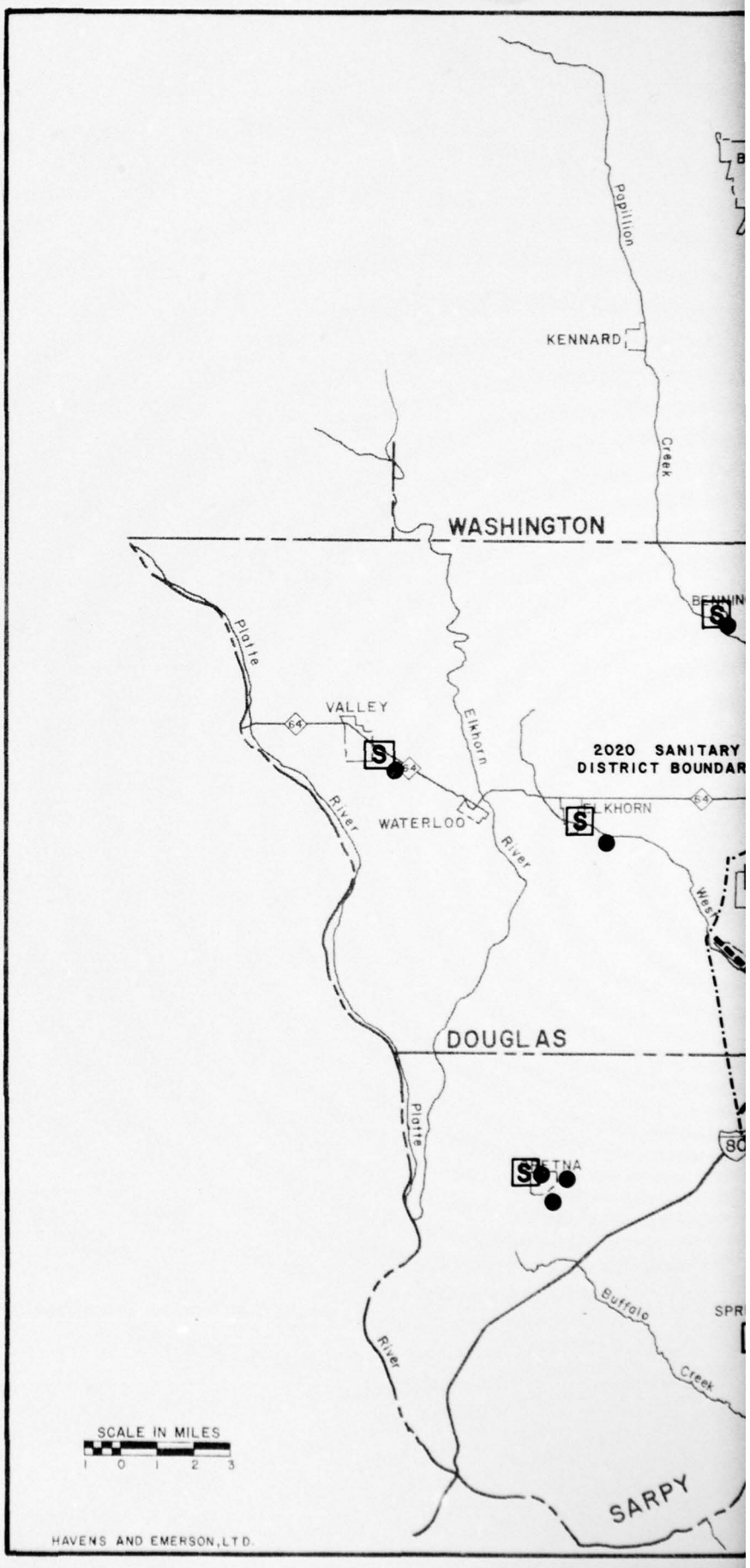
- Will the timing of wastewater discharges have an adverse impact on water quality?

- Would the implementation of additional land use controls reduce overall investments for water pollution control facilities?

40. In addition to the above, the wastewater management plan must be acceptable to the public. Sewer construction is one of the factors that allows urban development to occur. Therefore, community attitudes toward growth are to be given serious consideration.

41. Responding to the above questions, and to the public, dictates the use of alternative growth concepts.

42. All the wastewater management plans were developed in consideration of the four alternative concepts. Figure C-5 illustrates the sewer plan developed for Growth Concepts A and D. Figure C-6 is the sewer plan for Growth Concepts B and C. All wastewater management facilities are sized to the four growth concepts. The effects of the four concepts on wastewater management are discussed in the following sections.



LEGEND

PLANT	MAJOR URBAN	MINOR URBAN
TREATMENT AND DISCHARGE TO DESIGNATED GOAL	T	T
SECONDARY TREATMENT PRIOR TO LAND APPLICATION	S	S

STORMWATER

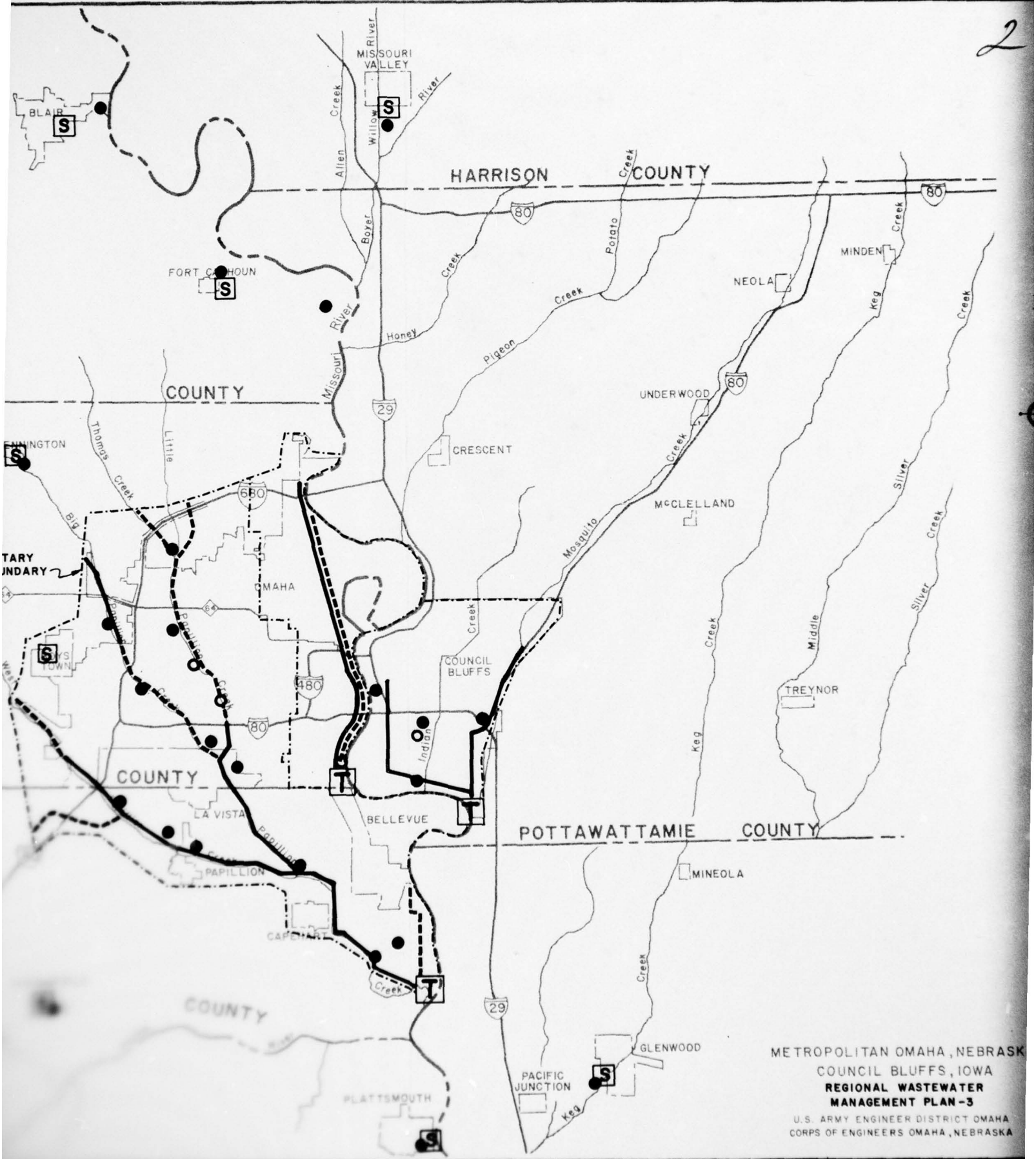
SEPARATE BASINS

COMBINED BASINS

TRANSMISSION FACILITIES

EXISTING

PROPOSED



METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA
REGIONAL WASTEWATER MANAGEMENT PLAN-3
U.S. ARMY ENGINEER DISTRICT OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

LEGEND

PLANT	MAJOR URBAN	MINOR URBAN
TREATMENT AND DISCHARGE TO DESIGNATED GOAL	T	T
SECONDARY TREATMENT PRIOR TO LAND APPLICATION	S	S

STORMWATER

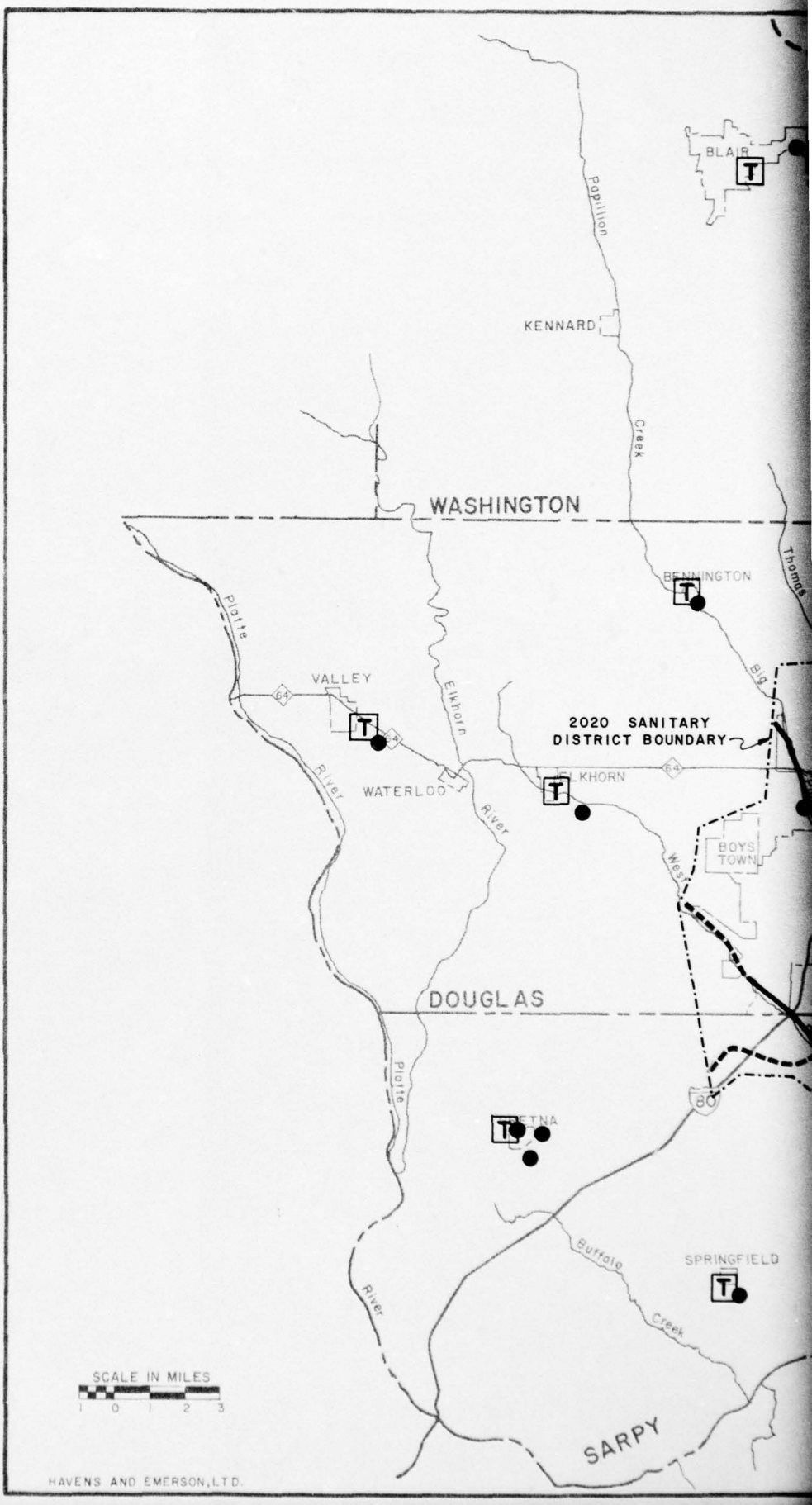
SEPARATE BASINS ●

COMBINED BASINS ○

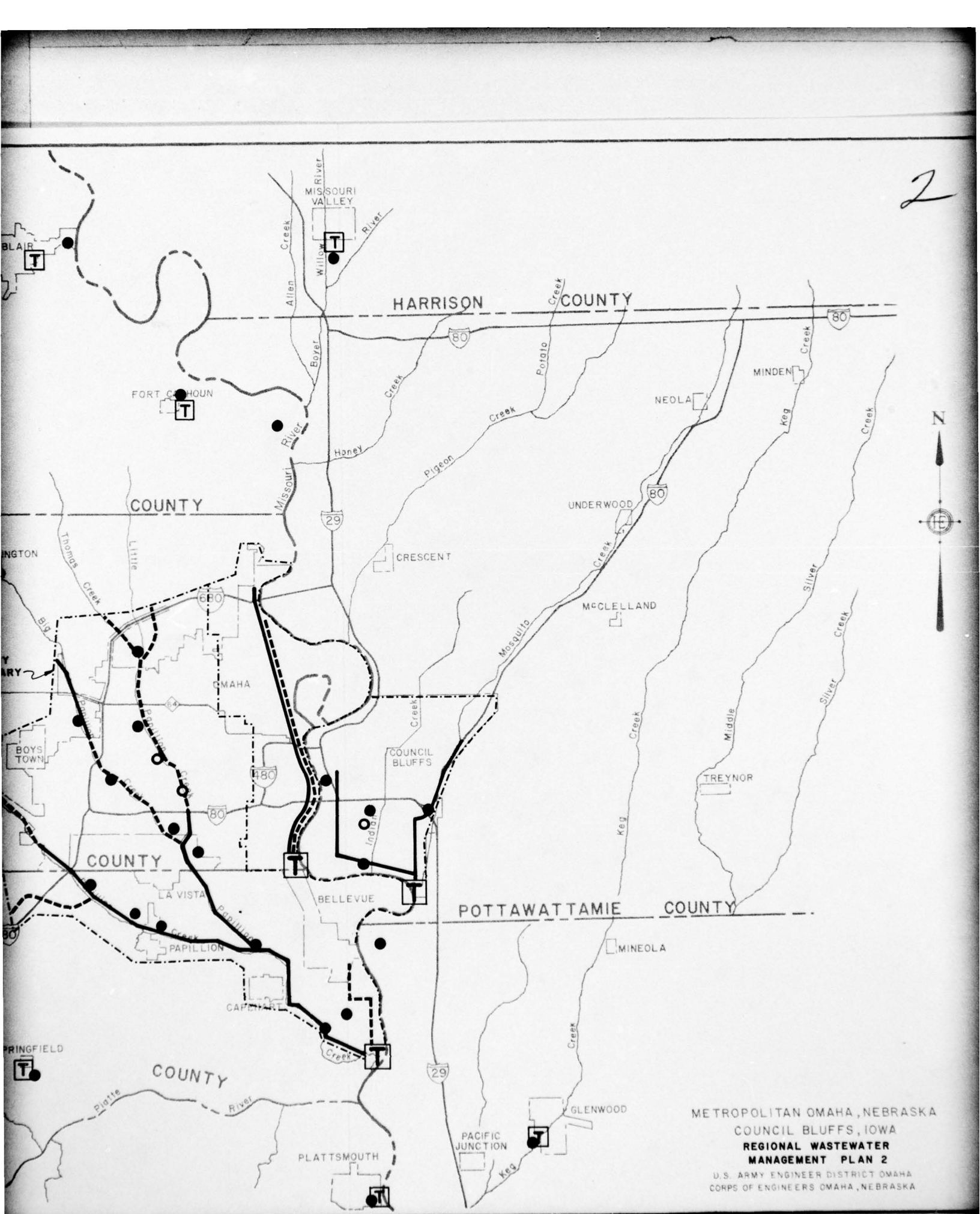
TRANSMISSION FACILITIES

EXISTING ——

PROPOSED - - -



HAVENS AND EMERSON, LTD.



METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA
REGIONAL WASTEWATER MANAGEMENT PLAN 2
U.S. ARMY ENGINEER DISTRICT OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

WATER SUPPLY

43. Similar to wastewater management, all water supply plans were formulated according to the four growth concepts. Figures C-7 through C-10 illustrate the system configuration for the four growth patterns. Differences in water and resource demands, treatment plant sizing, and water system planning are discussed in the next section.

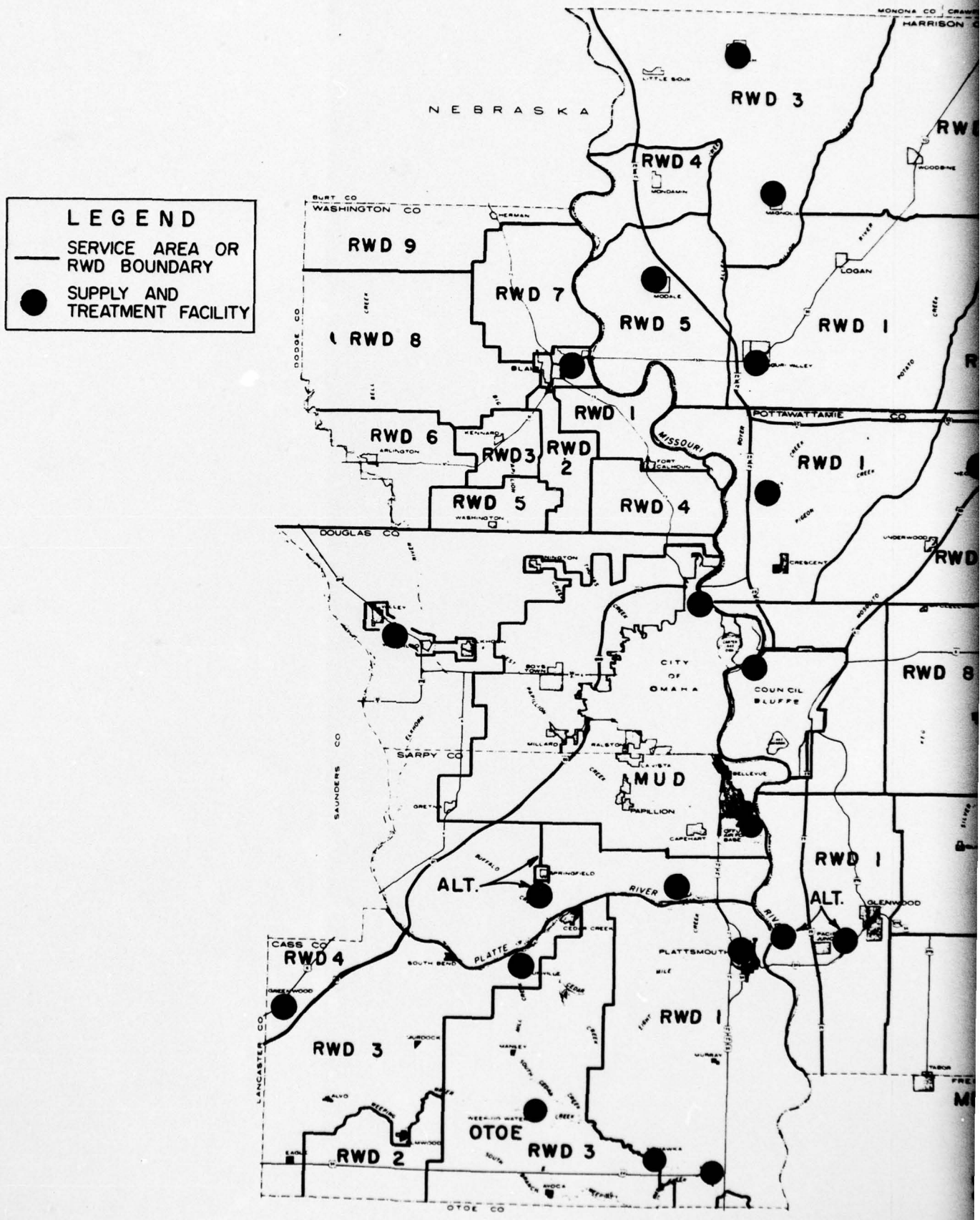
RECREATION

44. The provision of recreation is not as sensitive to growth as are water supply and wastewater systems. Some recreational considerations are apparent, however. Under concept differences, a scattered development will continue to take place in areas ideal for public recreation or natural preservation, particularly along the Platte-Elkhorn Rivers. Also, under unplanned scatteration, the provision of neighborhood parks is generally given second priority to residential development; under planned alternatives not only are regional rescurces preserved for public use but neighborhood recreation is normally considered part of the community development.

45. Persons living in the satellite cities of Concept B are in locations that are generally more accessible to future regional parks than they would be under suburbanization. The regional parks could then double as neighborhood parks for the satellite cities.

FLOOD MANAGEMENT

46. Flood hazard areas were considered as constraints in the formulation of the four concepts. Waterloo and Valley, Nebraska and


LEGEND
SERVICE AREA OR RWD BOUNDARY
SUPPLY AND TREATMENT FACILITY
NEBRASKA
MONONA CO
HARRISON
RWD 3
RWD 4
BURT CO
WASHINGTON CO
RWD 9
RWD 7
RWD 5
RWD 1
RWD 8
DODGE CO
LOGAN
POTTAWATTAMIE CO
RWD 6
RWD 3
RWD 2
RWD 5
RWD 4
MISSOURI
DOUGLAS CO
CITY OF OMAHA
COUNCIL BLUFFS
RWD 8
SARPY CO
SAUNDERS CO
MUD
PAPILLION
BELLEVUE
ALT.
RIVER
PLATTE
CASS CO
RWD 4
PLATTSMOUTH
GLENWOOD
RWD 1
ALT.
RWD 3
LANCASTER CO
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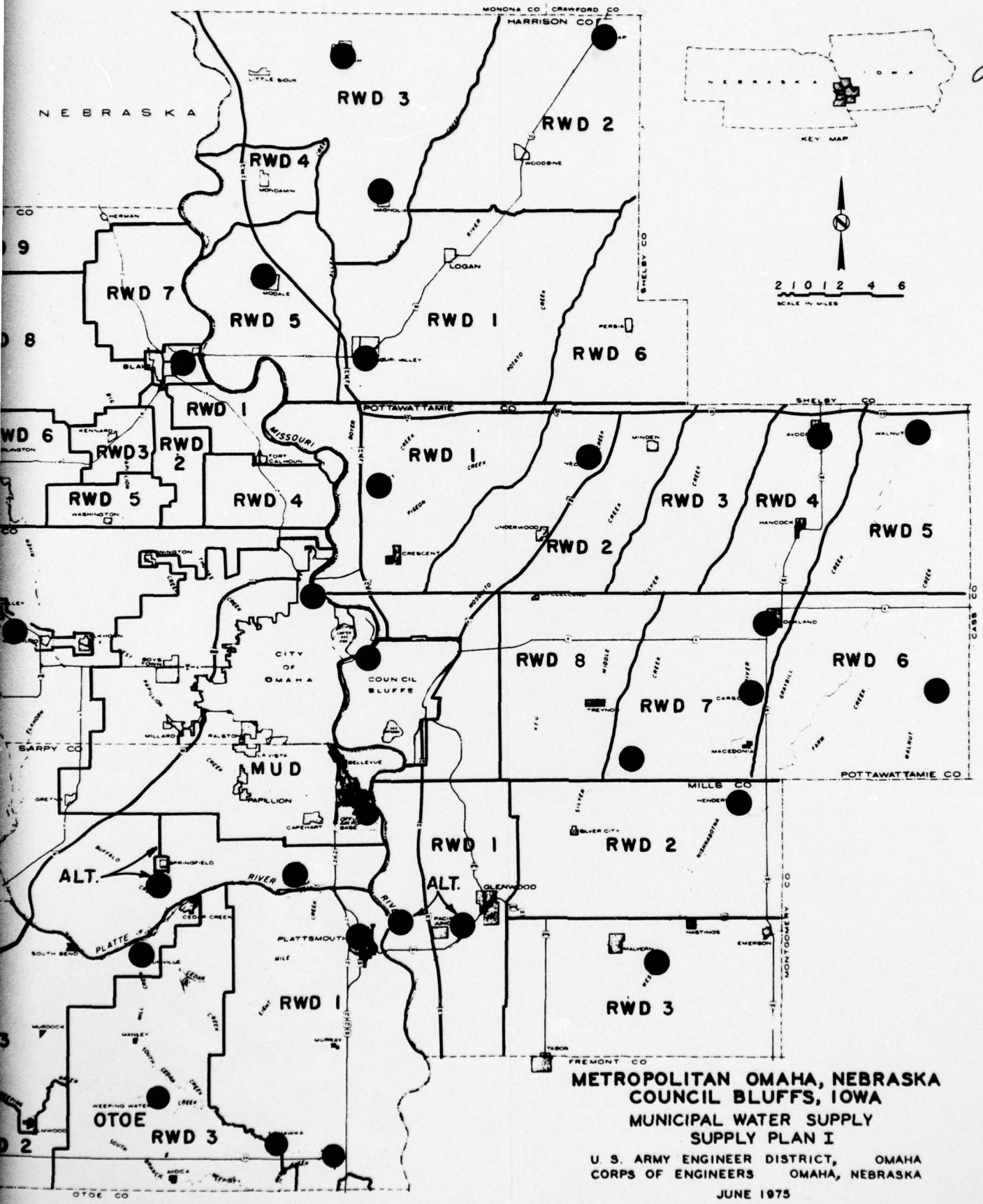
RWD 2
OTOE CO



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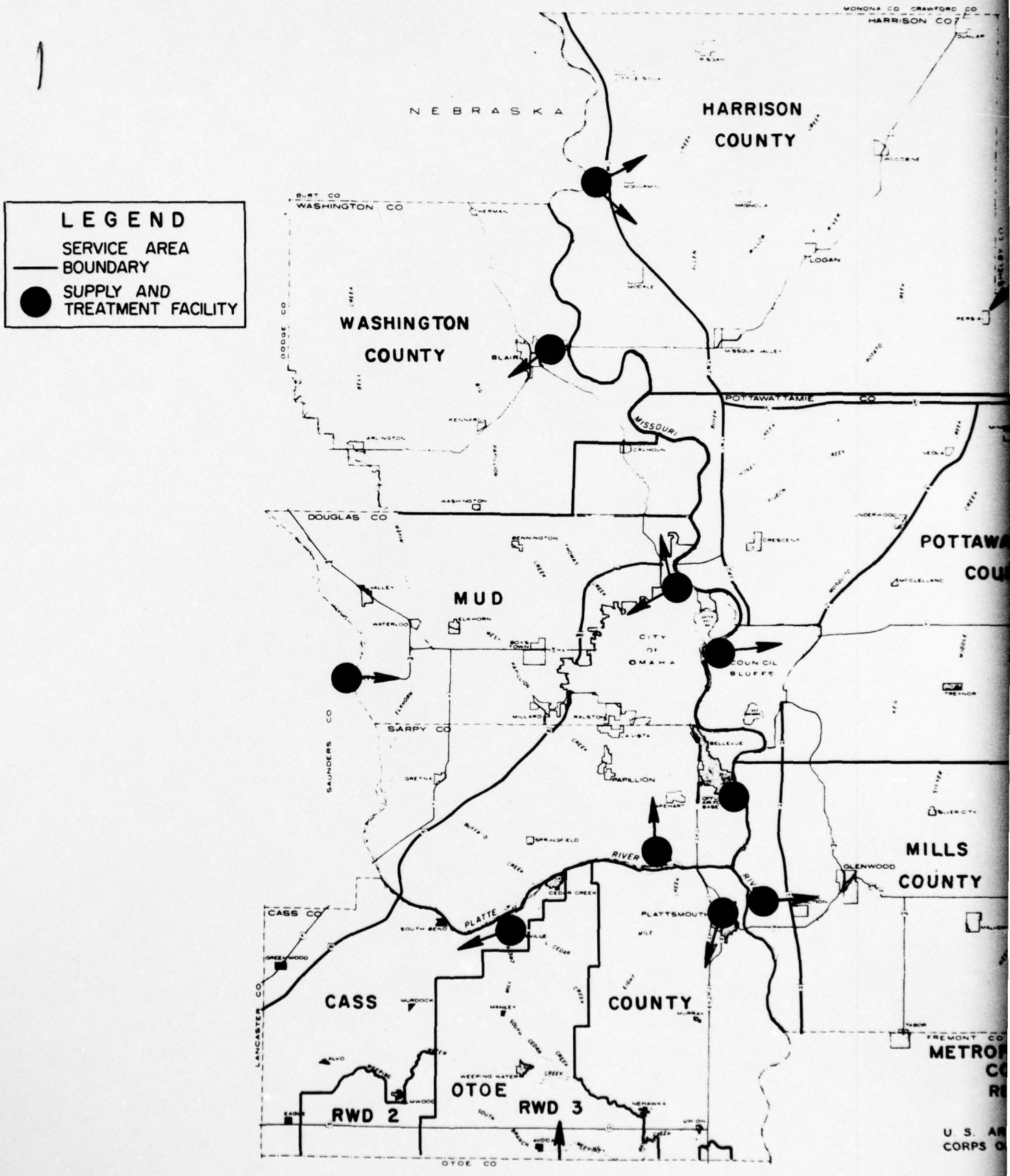
METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA
MUNICIPAL WATER SUPPLY
SUPPLY PLAN I

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

JUNE 1975

VOLUME III ANNEX A FIGURE C-7


LEGEND
SERVICE AREA BOUNDARY
SUPPLY AND TREATMENT FACILITY
NEBRASKA
HARRISON COUNTY
WASHINGTON COUNTY
POTTAWATTAMIE CO
MISSOURI
DOUGLAS CO
MUD
CITY OF OMAHA
COUNCIL BLUFFS
SARPY CO
SAUNDERS CO
PAPILLION
MILLS COUNTY
GLENWOOD
PLATTSMOUTH
CASS CO
CASS COUNTY
OTOE
RWD 2
RWD 3
OTOE CO
LANCASTER CO
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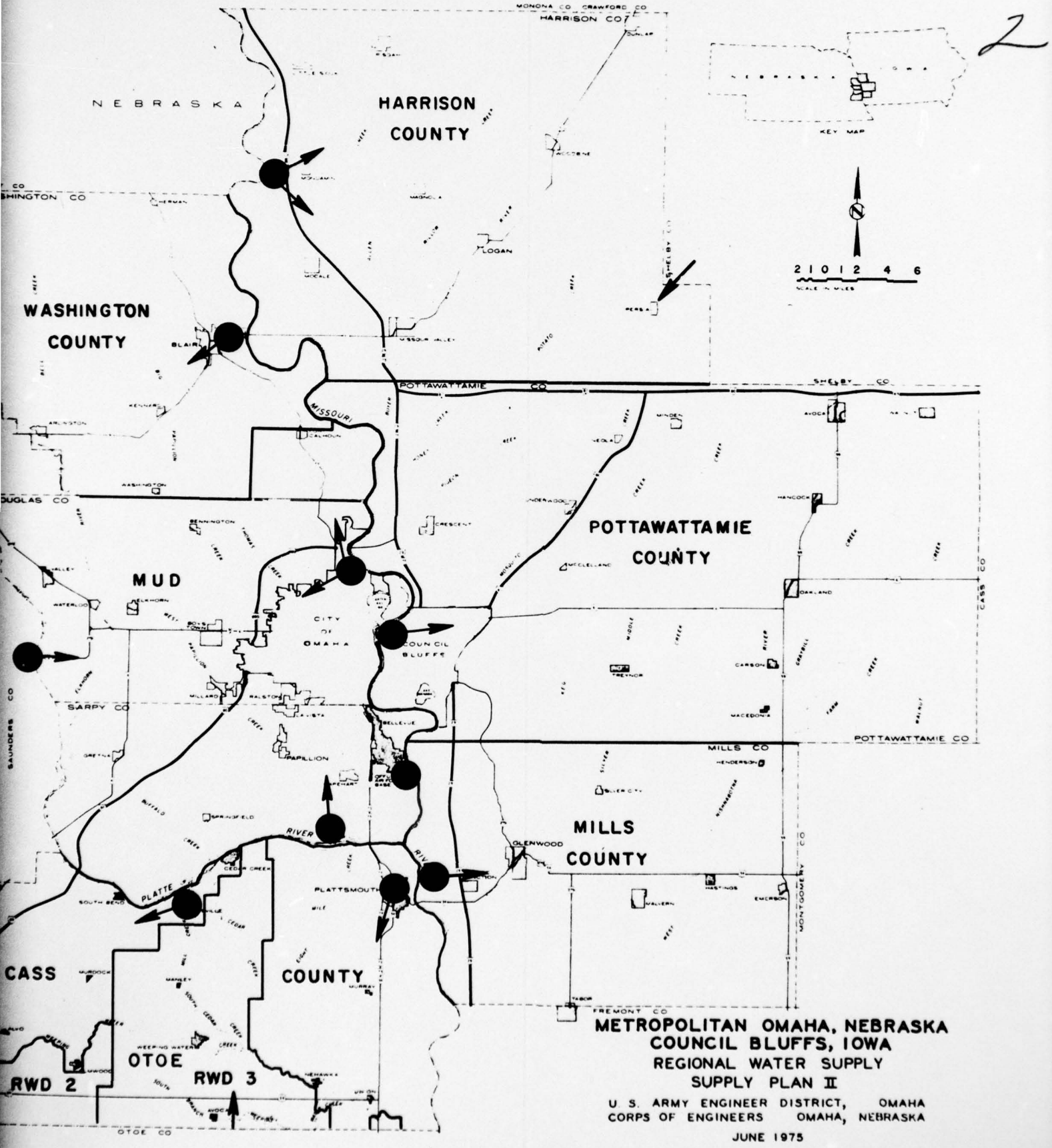

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METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA
REGIONAL WATER SUPPLY
SUPPLY PLAN II

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

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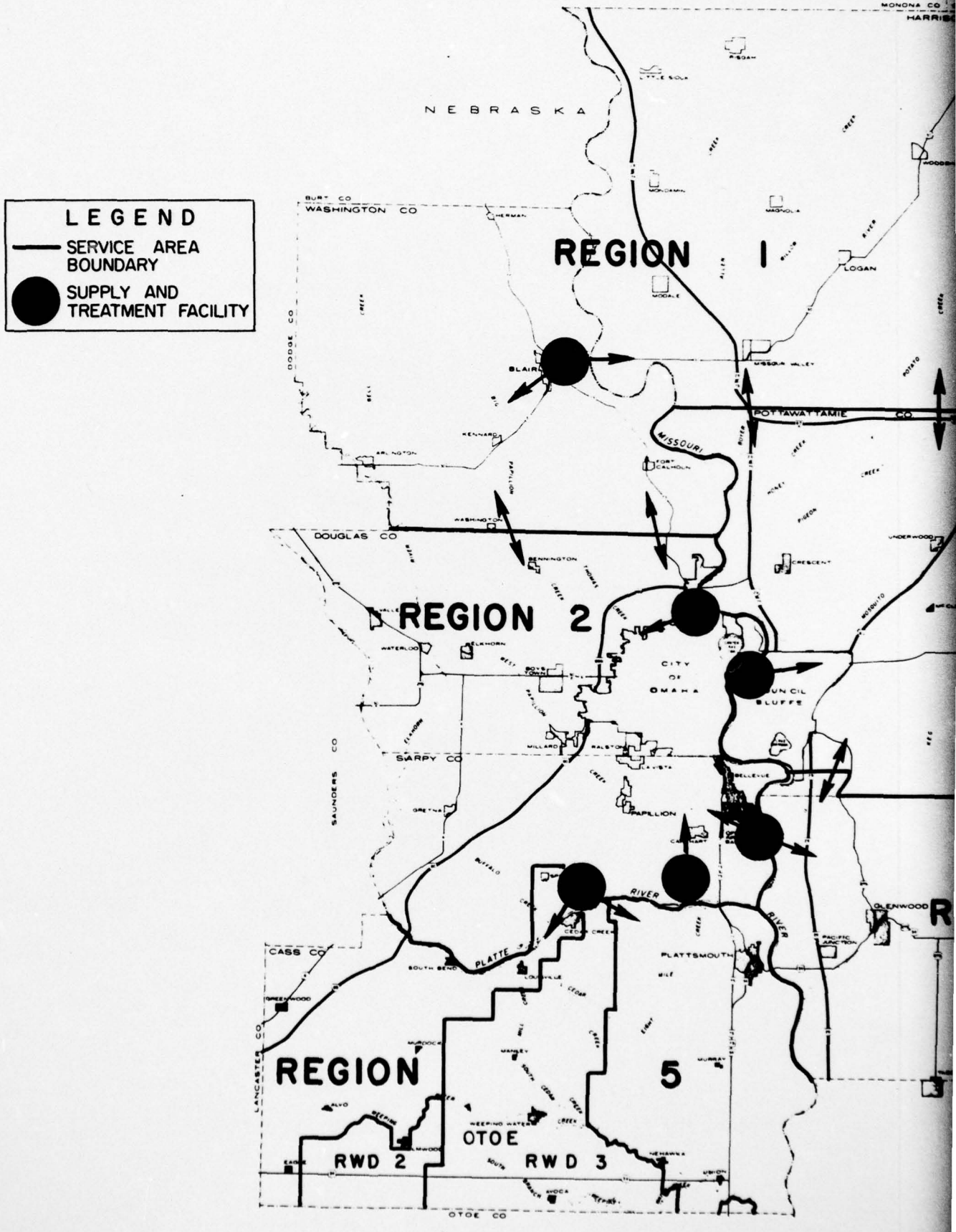
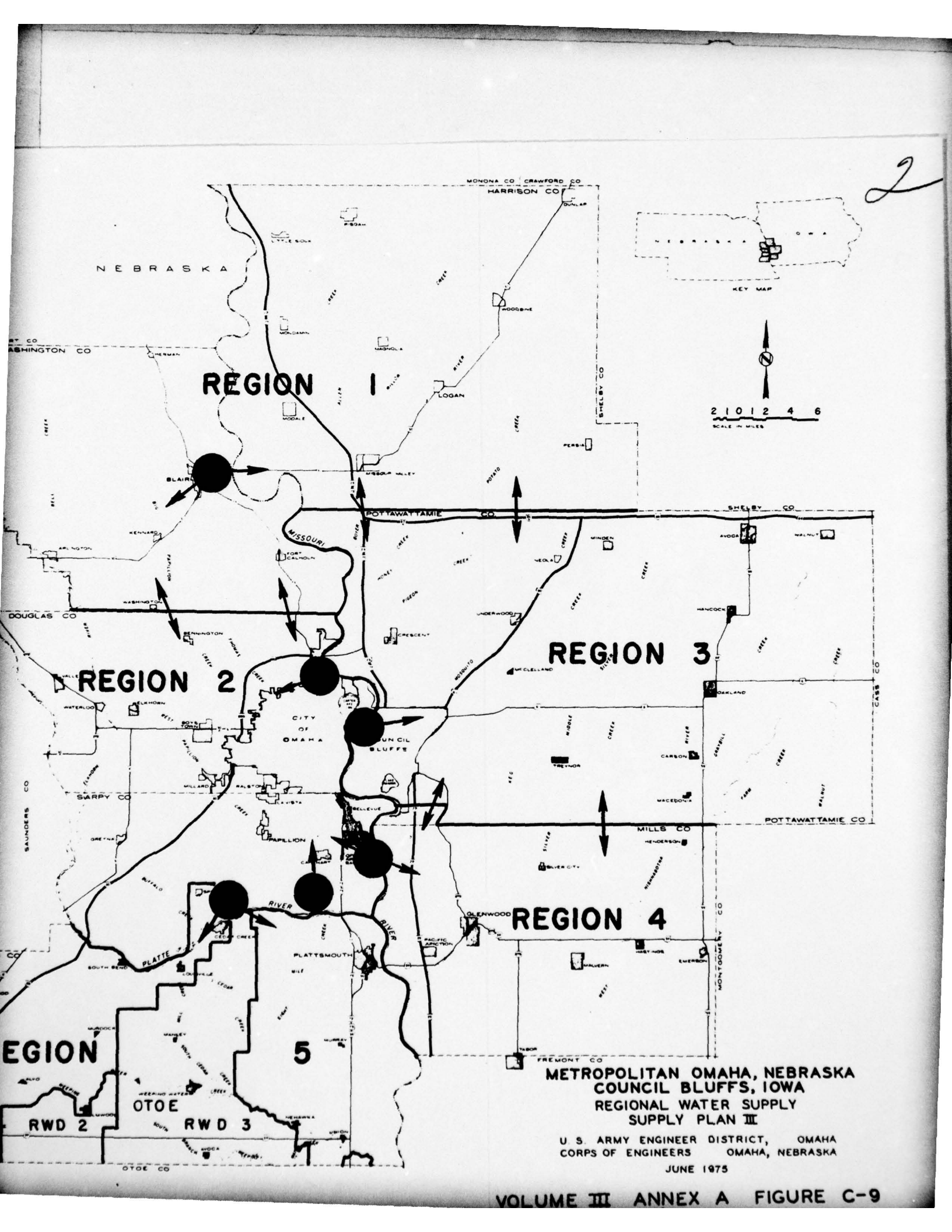
VOLUME III ANNEX A FIGURE C-8


LEGEND
SERVICE AREA BOUNDARY
SUPPLY AND TREATMENT FACILITY
NEBRASKA
REGION 1
REGION 2
REGION 5
WASHINGTON CO
DOUGLAS CO
SARPY CO
CASS CO
OTOE CO
DODGE CO
SAUNDERS CO
LANCASTER CO
BURT CO
MONONA CO
HARRIS
BLAIR
LOGAN
MISSOURI
POTTAWATTAMIE CO
CITY OF OMAHA
COUNCIL BLUFFS
PAPILLION
PLATTSMOUTH
PLATTE RIVER
MISSOURI RIVER
GLENWOOD
OTOE
RWD 2
RWD 3

VOL

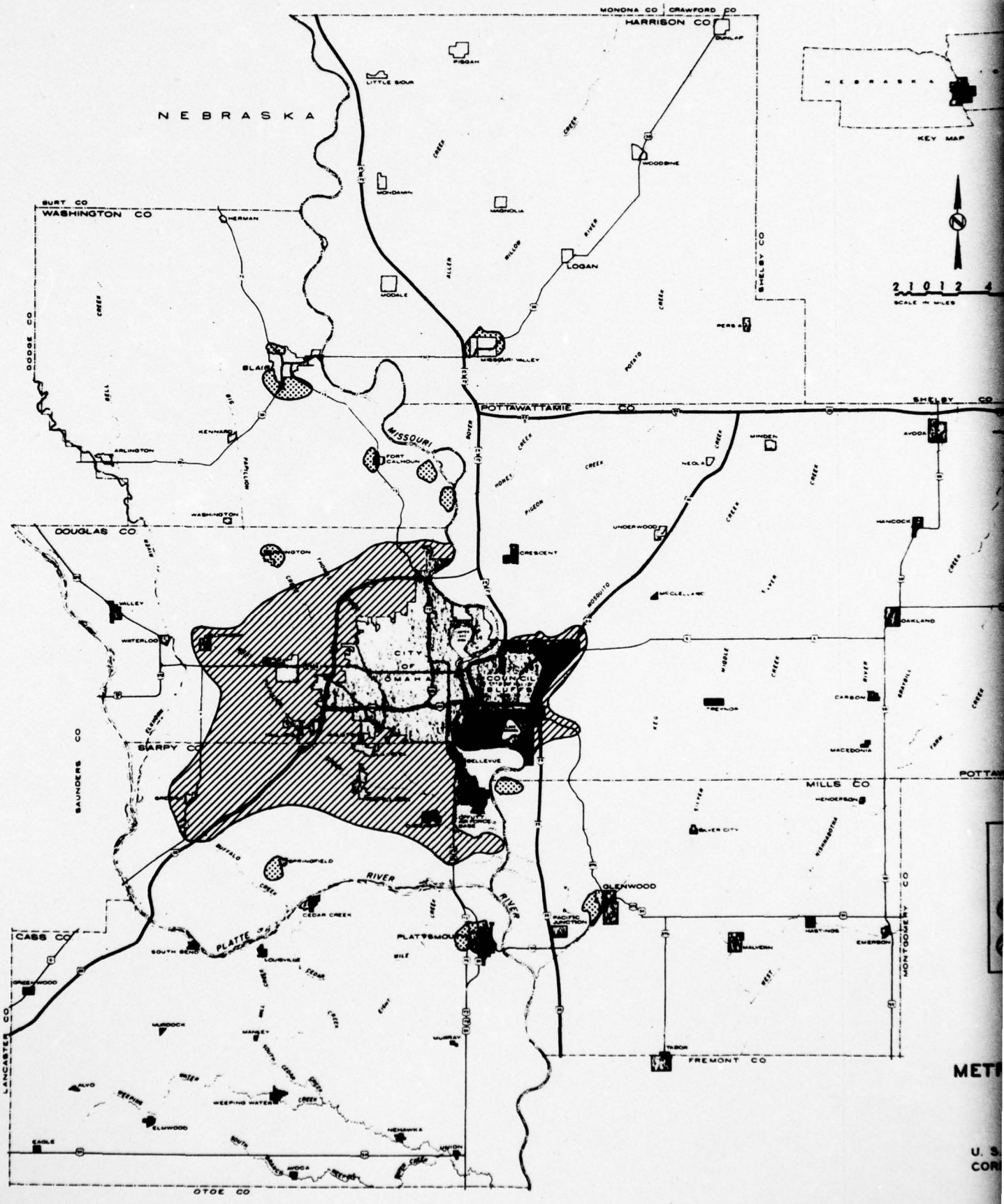


METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA
REGIONAL WATER SUPPLY
SUPPLY PLAN III

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

JUNE 1975

VOLUME III ANNEX A FIGURE C-9



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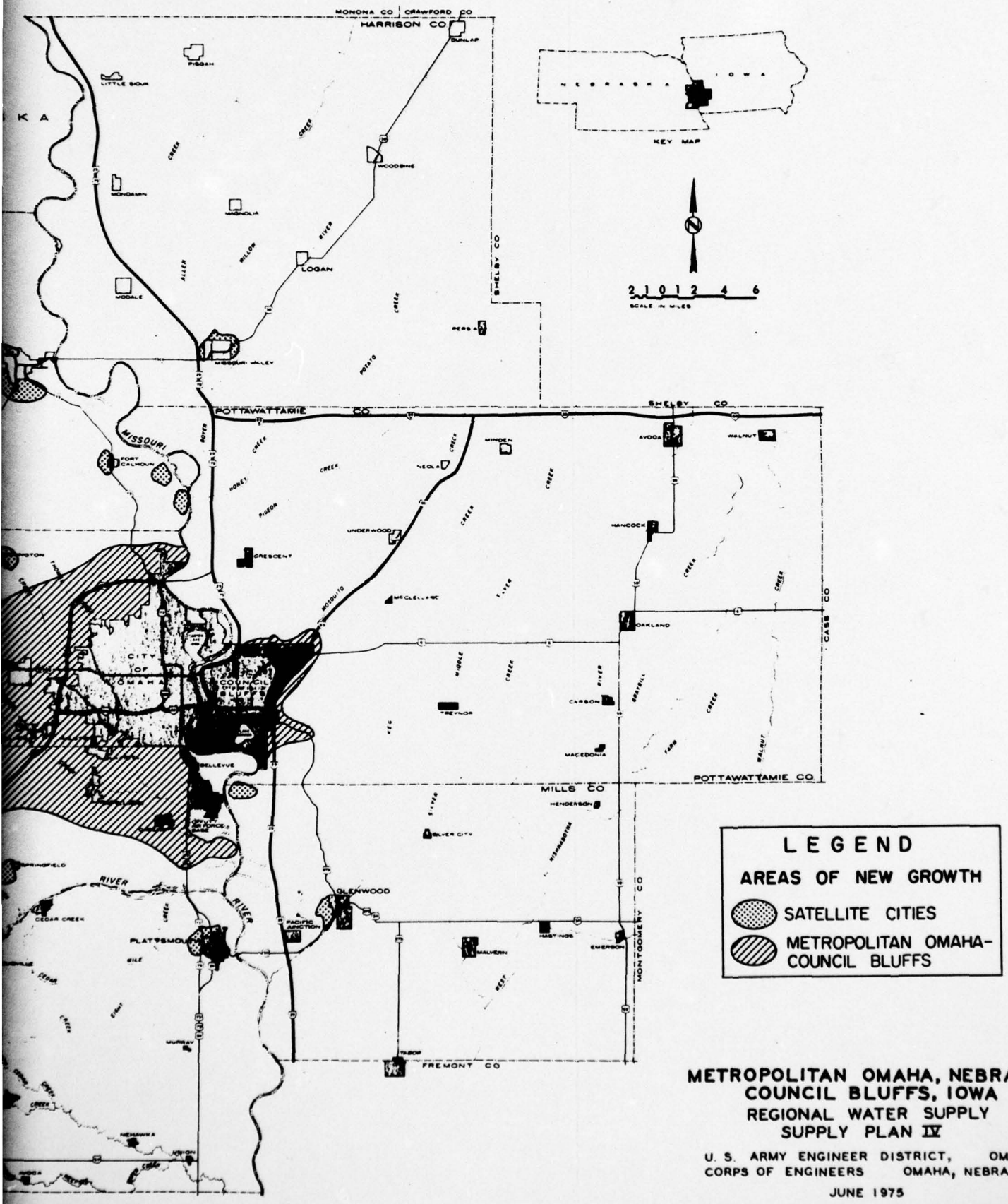

2

LEGEND

AREAS OF NEW GROWTH

- SATELLITE CITIES
- METROPOLITAN OMAHA-COUNCIL BLUFFS

METROPOLITAN OMAHA, NEBRASKA COUNCIL BLUFFS, IOWA REGIONAL WATER SUPPLY SUPPLY PLAN IV

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

JUNE 1975

VOLUME III ANNEX A FIGURE C-10

Missouri Valley, Iowa are all satellite city possibilities for metropolitan Omaha. Flood problems in these communities, however, preclude the absorption of population growth envisioned for the other satellite cities.

47. The Flood Disaster Protection Act of 1973 lessens the sensitivity of flood plains to urban development and to the Growth Concepts. Under controlled Growth Concepts B or C, the value of the developable portions of the flood plain will increase. This increase may make it economically attractive to raise building sites or flood-proof structures located within the floodplain but outside of the designated floodway. Monitoring and control of this development will be more important under Growth Concept B or C than under A or D where desires to economically use the flood plain would be less.

48. Runoff effects of the four growth patterns were also evaluated and are discussed in the next section.

SECTION D

EFFECTS OF THE ALTERNATIVES

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WATER AND RELATED LAND RESOURCES MANAGEMENT STUDY. VOLUME III. --ETC(U)
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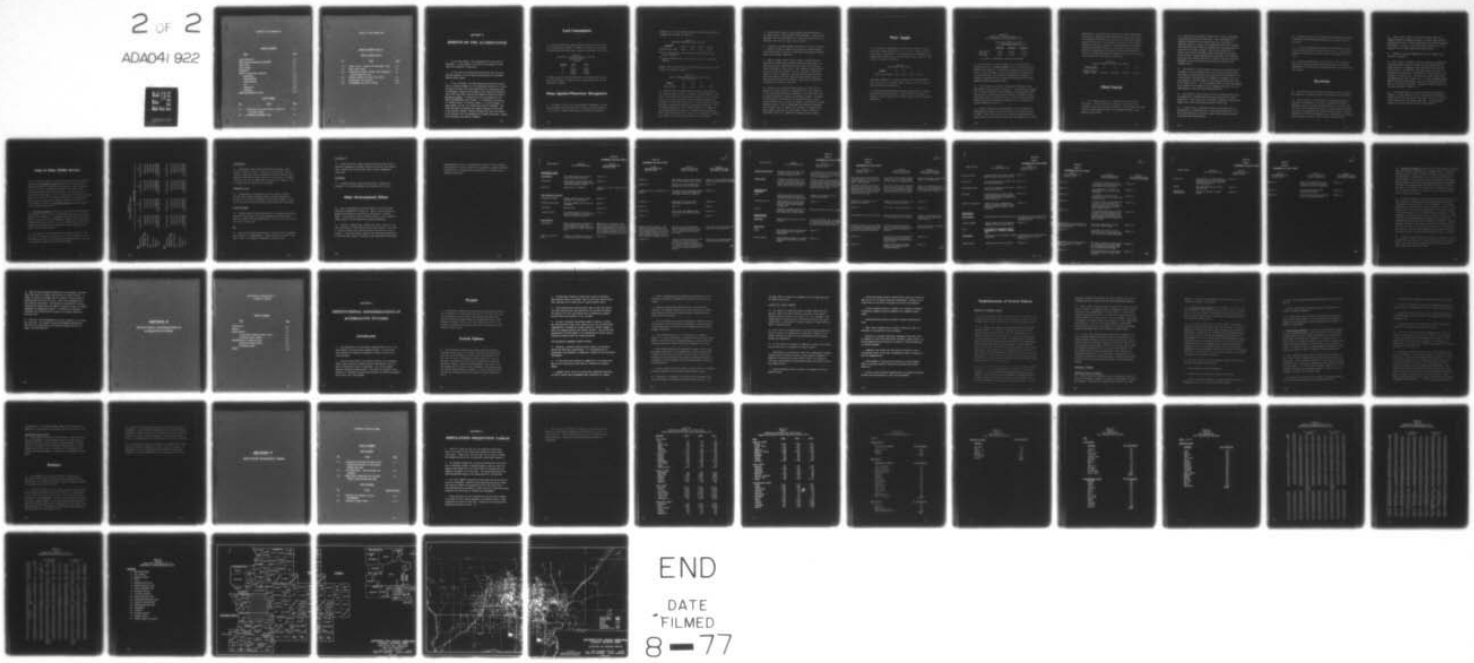

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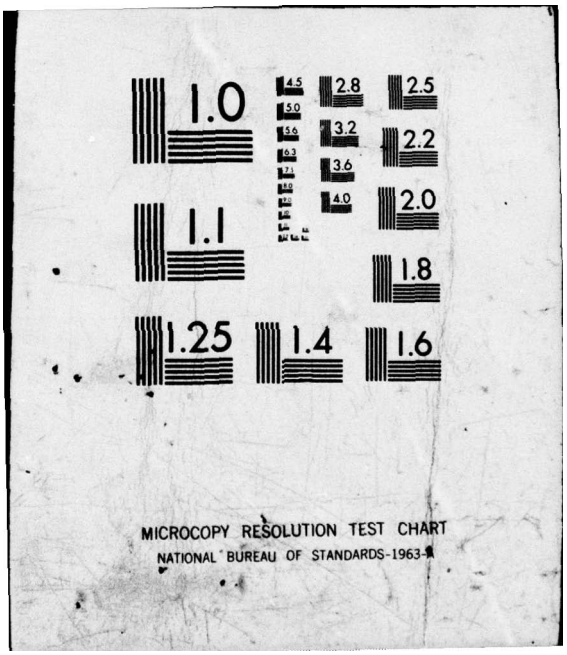
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5.0
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

EFFECTS OF THE ALTERNATIVES

TABLE OF CONTENTS

Item	Page
LAND CONSUMPTION	D-2
WATER QUALITY/WASTEWATER MANAGEMENT	D-2
WATER SUPPLY	D-5
FLOOD CONTROL	D-7
RECREATION	D-9
COSTS OF OTHER PUBLIC SERVICES	D-11
RESIDENTIAL	D-13
TRANSPORTATION	D-13
STORM DRAINAGE	D-13
GAS	D-13
ELECTRICITY	D-14
TELEPHONE	D-14
OTHER ENVIRONMENTAL EFFECTS	D-14

LIST OF TABLES

No.	Title	Page
D-1	CONVERSION OF LAND FROM RURAL TO URBAN USE BY GROWTH CONCEPT	D-2
D-2	WASTEWATER MANAGEMENT COSTS	D-3

TABLE OF CONTENTS (Cont'd)

LIST OF TABLES (Cont'd)

No.	Title	Page
D-3	CAPITAL COSTS - LATERAL AND TRUNK SEWER LINES	D-3
D-4	WATER SUPPLY COSTS	D-5
D-5	COMPARISON OF GROWTH CONCEPTS: NEW RESIDENTIAL GROWTH WATER USE--1995	D-6
D-6	ECONOMIC BENEFIT OF PLATTE RIVER SUPPLY	D-7
D-7	NEIGHBORHOOD COST ANALYSIS	D-12
D-8	ENVIRONMENTAL AND SOCIAL EFFECTS	D-16

SECTION D

EFFECTS OF THE ALTERNATIVES

1. In the last chapter, four alternatives for land use were described. In this chapter, an outline of the effects of each land use alternative is described.

2. All the costs and descriptions are derived from local and national agencies, but are compiled specifically for the Omaha-Council Bluffs region.

3. In all the models, the same population projection was used within a general boundary of a 500,000-person increase in 50 years. The water and sewer costs were developed by the consulting firms of Henningson, Durham, and Richardson, and of Havens and Emerson. Other costs were taken from the Environmental Protection Agency's The Cost of Sprawl. In analyzing the total neighborhood cost, these sub-components were included: (1) residential structures, (2) transportation, (3) sanitary sewers, (4) storm drainage, (5) water supply, (6) gas, (7) electricity, and (8) telephone. The costs were based on numerous and complex features of each item. As an overview, however, national averages were used as expressed in 1973 dollars with the assumptions of present technology, construction techniques, and service standards.

Land Consumption

4. The major difference among alternative futures is the impact on the land resource system. Estimated conversion of rural lands to urban lands under each growth concept is indicated in table D-1.

Table D-1
Conversion of Land from Rural to Urban Use
by Growth Concept
(Acres)

Concept	1995	2020
A	49,000	72,000
B	22,000	30,000
C	29,000	43,000
D	45,000	71,000

The above numbers are approximates but do represent order of magnitude differences in future land use changes associated with the four growth concepts.

Water Quality/Wastewater Management

5. In terms of water quality and wastewater management, the four growth concepts from most efficient to least efficient would rank C, B, D, and A. Present worth costs for wastewater facilities,

exclusive of trunk and lateral sewers but including major interceptors, are indicated in table D-2.

Table D-2
Wastewater Management Costs ($x10^6$)[1/]

Concept[2/]	A	B	C	D
Present Worth Costs	$534.5	$523.2	$507.2	$517.4

1/ For treatment of all waste sources to meet existing water quality standards.

2/ Growth Concepts A and D use sewer Plan I; B and C use sewer Plan II.

Capital costs for lateral and trunk sewer lines for the four concepts are indicated in table D-3.

Table D-3
Capital Costs-Lateral and Trunk Sewer Lines
(in $1,000,000)

Concept	A	B	C	D
Capital Costs	$91.0	$64.0	$62.0	$83.0

6. Although land use controls could be assumed under each of the growth concepts, Concept A envisions the least amount of control. Under Concept A, scatteration of development will continue with the creation of additional small treatment plants serving sanitary and improvement districts with a continuation in current operating, maintenance, monitoring, and control problems. This is occurring today and fits a trends forecast. The number of point discharges would increase. Unplanned sprawl development strips large amounts of land of natural or agricultural vegetation and increases the amounts of solids washed into streams.

7. Growth under Concept A also envisions population growth in the upper reaches of the Papillion Creek Watershed. Waste sources emanating from this development will create more oxygen demand on Papillion Creek due to a longer time of travel.

8. Generally, the same comments about Concept A apply to Concept D. Concept D, however, assumes some planning of urban expansion which could reduce the number of additional small sewage treatment plants in the future study area.

9. Being a planned growth concept, Concept B could curb the development of additional scattered sewage treatment plants, reduce the amount of construction-related runoff, and eventually reduce the amount of urban runoff. New treatment plants would be required for New Town satellite cities. Additional population growth in Elkhorn, Bennington, and Gretna would place additional pollutant loads on Papillion Creek and would require that more than secondary treatment be provided. Costs for this additional treatment are included in table D-2.

10. Concept C is the optimal growth concept for water quality. Population confined closer to the Missouri River would allow use of the large waste assimilative capacity of the River rather than the small assimilative capacity at tributary streams. The amount of land stripped of vegetation for development would be less. Growth controls would eliminate the further proliferation of sewage treatment plants. Overall investments for wastewater management under Concept C are the least of all concepts. The major interceptor sewers envisioned for this concept would be capable of eliminating most of the existing SID sewage treatment plants.

Water Supply

11. In terms of water supply, the four growth concepts from most efficient to least efficient are C, B, D, and A. Based on Water Supply Plan I, presented in the Water Supply Plan Formulation Annex, present worth costs for all water supply facilities under the four concepts are shown in table D-4.

Table D-4
Water Supply Costs ($x10^6$)

Concept	A	B	C	D
Present Worth Costs	$450.0	$419.2	$413.4	$445.2

Less water consumption in outlying areas under Growth Concepts B and C would result in lessened pumping costs as well as a reduced piping network and piping size.

12. Average and peak day and peak hour residential water demands are affected by growth concept. Table D-5 shows the result of analysis of water demands versus growth concept for new residential growth only.

Table D-5
Comparison Of Growth Concepts
New Residential Growth Water Use--1995[1/]

	Water Use - Percent Differential From Growth Concept A		
	Concept B	Concept C	Concept D
Average Day	- 4.9%	- 6.6%	- 1.0%
Peak Day	- 9.3%	-12.1%	- 2.0%
Peak Hour	-10.9%	-14.0%	- 2.0%

1/ Source - Henningson, Durham and Richardson

13. As is evident by the above table, the higher residential densities implicit in Growth Concepts B and C definitely result in lessened water demands. Of particular interest is the wide variation in peak hour loading and its implications for system design. In new growth areas, which would be predominately residential, density of development would therefore significantly affect water quantity demanded and system design.

14. In the aggregate situation, average day differences become less distinct than indicated in table D-5. Residential use accounts for 70 percent of municipal water demands. New residential growth over the next 50 years would amount to about 50 percent of total residential areas in existence at 2020. Overall average day water demand reduction would therefore represent only 35 percent of the figures indicated in table D-5.

15. If Omaha continues to expand westward, it will become more advantageous to develop a new well field on the Platte River west of Omaha. Water from this well field requires less treatment and less pumping to service western Omaha than does Missouri River water.

Development of this Platte River source is currently questionable due to source reliability and environmental factors, both related to projected low flows and zero flows for the Platte River during extended dry periods. If the Platte River source is not developed additional costs will be incurred by the customers of the Omaha Metropolitan Utilities District. The amount of annual economic benefit is affected by growth pattern as indicated in table D-6. Table D-6 indicates that Growth Concepts B and C are more efficient if the Platte well field cannot be developed.

Table D-6
Economic Benefit of Platte River Supply

Growth Concept	A	B	C	D
Annual Economic Benefit (1995)	$750,000	$400,000	$420,000	$675,000

Flood Control

16. Flood plains present both a constraint and attraction to development. Urban development creates more impervious areas, increases runoff, and the risk of flooding. The four growth patterns would in varying fashion affect flood problems primarily in the Papillion Creek basin.

17. Under the Flood Disaster Protection Act of 1973, development in the flood plain must be restricted. Local governments in the Papillion Creek basin have recently zoned the flood plains to conform to the Act. As such, the undeveloped portions of the Papillion Creek flood plain were not considered for urban development in any of the four growth concepts. Under Growth Concept B or C, however, the value of the flood plains for compatible land uses would increase. Raised building sites, particularly for industrial activities, and parking lots would be a major flood plain land use. Management of the flood plain would become more critical under Concepts B and C.

18. The effects of runoff caused by the four growth patterns would be negigible in the downstream reach of the Papillion Creek basin. That reach is defined as being just upstream of the confluence of the Little Papillion and Big Papillion Creeks to the Missouri River and just upstream of the West Papillion confluence with Papillion Creek to the Missouri River. In these reaches, runoff from the lower-density more extended area (Concepts A and D) almost equals runoff from the higher-density, less land area (Concepts B and C).

19. The effects of runoff caused by the four growth patterns could be significant in upstream reaches and along the Papillion Creek tributaries. The effects would be extremely affected by neighborhood design, storm sewer design and intensity of storm event.

20. A higher density neighborhood does not necessarily mean a greater amount of impervious area. The densities under each of the four growth patterns are not high enough to make any valid conclusions concerning imperviousness.

21. By designing either layer or smaller storm sewers the effects of impervious area differences under the four patterns could be nullified.

22. At higher intensity storm events, the differences in runoff from pervious and impervious areas becomes less. It is the higher intensity events that are of flood concern in the Papillion Creek basin.

23. The above factors lead to the conclusion that alternative, specific neighborhood designs would be required to make factual statements on the runoff/flood relationships among the four alternative futures.

Recreation

24. The effects of the four growth patterns on outdoor recreation are impossible to quantify; however, some trends can be indicated.

25. Under Concept A, the free market is assumed scatteration of development is foreseen, in the form of residential/recreation communities along the Platte and Elkhorn Rivers. This development will take place in areas identified in the Recreation Plan Formulation Annex as proposed regional parks and natural areas. Although attractive for the private homeowner, such development will restrict public access to and use of many of these recreation lands.

26. Under Concept A many of the Papillion Creek Lakes will be community parks for suburban residents. Although local parks are given second priority in sprawl development, lower land prices make sites easier to acquire. Land prices under Concepts B and C are expected to be at least double those under Concept A.

27. Generally, the same comments that apply to Concept A are inherent in Concept D.

28. Under Concept B, persons living in the satellite communities would have greater access to proposed regional parks along the Platte, Elkhorn, and Missouri Rivers than under any of the other three concepts. The Papillion Creek Lakes would form part of a greenbelt between Omaha and the satellite cities and would be more regionally oriented in use. The lakes would retain more natural surroundings than under Concepts A or D. Concept B assumes higher-density planned suburban growth, with local recreation activities part of the planned development. Acquisition costs for land would be higher than under Concept A or D.

29. Under Growth Concept C, an end to scattered development is assumed. Proposed parks and natural areas along the Platte and Elkhorn Rivers are preserved for public use. Most of the Papillion Creek Lakes would be for regional park uses. For local parks, Concept C would have similar effects as for Concept B.

Costs of Other Public Services

30. The following costs were derived from the Real Estate Research Corporation's The Cost of Sprawl sponsored by the Environmental Protection Agency, the Department of Housing and Urban Development, and the Council for Environmental Quality. The costs to serve various development patterns in the above report were applied to the densities envisioned in the four growth concepts and in the urban study. The portion of new housing attributed to low, medium, and high density for each growth concept is indicated in table C-3. All reservations stated in The Costs of Sprawl must also be applied to the costs indicated below.

31. The Costs of Sprawl divided public costs between neighborhood and community costs. Only the neighborhood costs were used in this study, for two reasons: (1) community costs vary widely from community to community, being site-specific, whereas for the most part neighborhood costs do not and; (2) in the Omaha-Council Bluffs area community costs would be more affected by total population growth rather than by growth pattern.

32. The results of the neighborhood cost analysis applied to the four growth concepts are shown in table D-7 for development to the years 1995 and 2020. The following is a summary of what is included in the capital costs for each of the categories:

Table D-7
Neighborhood Cost Analysis

	Capital Cost			
1995	A	B	C	D
Residential	$2,200,383,000	$1,884,369,000	$1,791,242,000	$2,125,716,000
Transportation, Streets & Roads	205,800,000	175,336,000	165,152,000	199,655,000
Storm Drainage	84,860,000	67,470,000	62,148,000	80,926,000
Gas	8,680,000	7,031,000	6,534,000	8,300,000
Electricity	25,139,000	19,038,000	16,975,000	21,700,000
Telephone	14,910,000	9,698,000	12,866,000	14,424,000
TOTAL	$2,539,772,000	$2,162,944,000	$2,054,917,000	$2,369,356,000
2020				
Residential	$3,507,000,000	$2,850,000,000	$2,840,000,000	$3,490,000,000
Transportation, Streets & Roads	328,566,000	266,843,000	264,366,000	327,548,000
Storm Drainage	135,467,000	99,761,000	98,760,000	134,675,000
Gas	13,850,000	10,450,000	10,360,000	13,770,000
Electricity	33,685,000	31,713,000	30,311,000	34,290,000
Telephone	23,709,000	20,170,000	20,181,000	23,577,000
TOTAL	$4,042,277,000	$3,278,927,000	$3,263,972,000	$4,023,860,000

RESIDENTIAL

33. Residential costs include structures (foundation, shell, plumbing, heating, electric lighting, air conditioning), paving, parking, landscaping, utility connectors (sanitary sewerage, storm drainage, water supply, gas. electricity and telephone). Average floor area per unit in square feet is 1,600 for low density, 1,200 for medium density, and 950 for high density.

TRANSPORTATION

34. Transportation costs include arterial streets, collector streets, minor streets, seeding, profit, overhead, engineering; includes curbs, gutters, sidewalks, lighting and earthwork. Costs do not include major arterials such as expressways and interstates.

STORM DRAINAGE

35. Drainage costs include pipeline, profit, overhead, engineering, materials, installation, earthwork, manholes, and catch basins. Costs are based on various combinations of 12,- 18,- 30,- and 42-inch reinforced concrete pipe.

GAS

36. Gas service costs include pipeline, overhead, profit, engineering, materials, and installation. Costs include only 2- and 4- inch pipe. Larger Pipe sizes are considered a community cost.

ELECTRICITY

37. Electrical service costs include underground cable, profit, overhead, engineering; includes trenching, materials, and installation. Costs do not include power plans or major transmission facilities.

TELEPHONE

38. Telephone service costs include material, installation, earthwork, all overhead expenses, and subcontractor's profit.

Other Environmental Effects

39. Other environmental and social effects in the four growth patterns are summarized in table D-8. Most of these effects give general indications only and should be the subject of further study. It is possible, based on further study, to put a numerical value on some of the factors such as energy consumption.

40. Generally, research has indicated that there is more air and water pollution, but less noise pollution under Concept A than under C. There is higher use of gas and electricity when the choice is A over C. On the other hand, Concept C may have more concentration of pollution than Concept A because of more concentrated activities.

Counterbalancing this, the community may enjoy more varied housing, more exposure to various groups in the population, improved facilities and services at a cheaper rate, and exposure to a broader range of community activities.

Table D-8

ENVIRONMENTAL AND SOCIAL EFFECTS

GROWTH CONCEPTS	CONCEPT A LOW DENSITY URBAN SPRAWL	CONCEPT B CONTROLLED GROWTH INTO SATELLITE CITIES
Environmental Effects		
Air Pollution	Total amount increases with sprawl; total concentration decreases	Similar to C
Private Auto	Highest level of auto pollution due to variation in auto use among housing types and development patterns	Similar to C
Natural Gas	Highest level of pollutants	Similar to C, but at a higher level of emission
Water Pollution and Erosion		
Sediment from Erosion	Greatest amount due to the largest percentage of disturbed soils	Similar to C
Pollutants from Sewage	Population dependent rather than site development	Same as A
Storm Runoff	Greatest level	Similar to C
Sanitary Landfill	No variations among site patterns, function of population, soil characteristics and quality of operation	Same as A
Noise Pollution		
Transportation	Buffers lacking, higher transportation use, but spread over larger area. Greater diffusion of noise impacts due to low density, but highest automobile usage	Buffer strips and planning to locate dwellings away from arterial roads, minor roads designed for local access only; dwellings insulated from traffic noise; traffic on arterials less subject to stopage conditions; traffic on local streets less frequent and slower
Interior and Exterior Noise	Decrease in neighborhood noise due to low density, due mostly to residents	Similar to C

2

Table D-8

ENVIRONMENTAL AND SOCIAL EFFECTS

CONCEPT B CONTROLLED GROWTH INTO SATELLITE CITIES	CONCEPT C CONTROLLED GROWTH WITH INTERIOR REDEVELOPMENT	CONCEPT D STRIP DEVELOPMENT ALONG TRANSPORTATION CORRIDORS
Similar to C	Total amount decreases with increased density; total concentration increases	Similar to A with increased concentration along transportation corridor
Similar to C	Lowest level of auto emission due to decreased travel time and distance	Similar to A
Similar to C, but at a higher level of emission	Lowest level due to housing mix, larger percentage of high density which has the largest variation in energy use	Similar to A
Similar to C	Substantially less than A due to differences in developed acres	Similar to A
Same as A	Same as A	Same as A
Similar to C	Lowest level, more likely to have a comprehensive storm drainage system	Similar to A
Same as A	Same as A	Same as A
Buffer strips and planning to locate dwellings away from arterial roads, minor roads designed for local access only; dwellings insulated from traffic noise; traffic on arterials less subject to stopage conditions; traffic on local streets less frequent and slower	High density causes concentrated traffic flows requiring setbacks and buffers; location of noise sensitive uses along quiet side streets and cul de sacs	Where there are no buffers and setbacks noise irritation likely
Similar to C	Increase in interior noise due to concentration of people in multiple dwelling units, could be solved by design and construction; concentration of children in shared common open space away from own home more likely to be a nuisance	Similar to A, but increased noise along transportation corridors

Table D-8

(cont'd)

ENVIRONMENTAL AND SOCIAL EFFECTS

GROWTH CONCEPTS	CONCEPT A LOW DENSITY URBAN SPRAWL	CONCEPT B CONTROLLED GROWTH INTO SATELLITE CITIES
Vegetation and Wildlife	Virtually no land left totally undisturbed eliminating habitats and disrupting ecological balance	Less disruption with preservation of open space; degree of adverse effects dependent upon ability of species to adapt to human proximity
Visual Effects	Individual developments may be well designed, but lack of control will result in haphazard spreading which lowers visual quality; no completely vacant natural areas will remain	Development controls for retention of visually pleasing features; careful building designs; development controls restricting tree removal; wooded areas will be retained as part of planned recreation and open space
Water and Energy Consumption		
Water	Single family units use more water than high density units due to increased household and sprinkling uses	Dependent upon household size and sprinkling requirements
Electricity and Gas	Single family units use more energy for space heating, cooking, water heating, clothes drying, lighting, cleaning, etc.	Similar to C
Gasoline	Gasoline use dependent upon distance travelled; highly unlikely to have mass transit for all area coverage	Good potential for mass transit system
Personal Effects		
Travel Time	Greatest travel time due to increased distances	Auto travel time less than A, increase in biking and walking time; time saved as a function of planning efforts and location of services and facilities
Psychic Costs		
Design	Tract housing with little design variation; expresses lack of desire for individuality	Similar to C
Natural Features	Land developed with desire to economize on direct costs regardless of natural features	Similar to C

2

Table D-8

(cont'd)

ENVIRONMENTAL AND SOCIAL EFFECTS

CONCEPT B CONTROLLED GROWTH INTO SATELLITE CITIES	CONCEPT C CONTROLLED GROWTH WITH INTERIOR REDEVELOPMENT	CONCEPT D STRIP DEVELOPMENT ALONG TRANSPORTATION CORRIDORS
Less disruption with preservation of open space; degree of adverse effects dependent upon ability of species to adapt to human proximity	Least adverse effect through careful planning to conserve special habitats and large tracts of undisturbed land	Leap frog development leaving small packets of undisturbed land
Development controls for retention of visually pleasing features; careful building designs; development controls restricting tree removal; wooded areas will be retained as part of planned recreation and open space	High density produces much landscaped private open space typical of lower density areas; contiguous development will allow large amounts of woodland and farm acreages to be left intact	Similar to A; haphazard spread of urban uses without significant control over visual image; much less natural landscape left vacant
Dependent upon household size and sprinkling requirements	Least household and sprinkling use due to number of high density units	Similar to A
Similar to C	Lowest user, reflects housing types	Similar to A
Good potential for mass transit system	Greatest potential for mass transit and alternate modes of transportation	Potential along transportation corridors for some type of mass transit facility
Auto travel time less than A, increase in biking and walking time; time saved as a function of planning efforts and location of services and facilities	Auto travel time reduced by half, increase in walking and biking due to close proximity of facilities and services	Travel time less than A, possible park and ride travel
Similar to C	Generally more varied housing design, unique patterns of street layout, vehicular pedestrian separation perceived as safer	Similar to A
Similar to C	Emphasis on preserving open space through cluster housing, outdoor activities important	Similar to A

Table D-8

(cont'd)

ENVIRONMENTAL AND SOCIAL EFFECTS

GROWTH CONCEPTS	CONCEPT A LOW DENSITY URBAN SPRAWL	CONCEPT B CONTROLLED GROWTH INTO SATELLITE CITIES	
Leisure Activities	Leisure oriented around home and family, greater reliance on private facilities	Similar to C	Wid enc rec
Leisure Time	More responsibilities to household tasks and exterior maintenance	Similar to C	Mor res dev
Socio-Economic Status	Likely to be homogeneous with regard to race, income, education	Similar to C	Mor het edu
Investment	Security perceived as based on socio-economic characteristics of neighbors; little security against unplanned change in nearby land uses	Similar to C	Per to pro abr aff
Facilities and Services	Little in the way of comprehensive public and community services; greater reliance on private resources in early development	Similar to C	Wid in vid the mun vid
Public Effects			
Police Services	Relative security through vehicle patrol	Development of new city police force for satellite cities or expansion of existing facilities	Les pro
Traffic Accidents	Greatest number due to total number of vehicles and vehicle miles travelled	Similar to C	Les dec wid
Crime	**No variations by development pattern; differences are a function of housing type**		
Fire Services	Greater cost for area coverage, response time greater	Development of new city fire departments or expansion or present facilities	Le fo du ri
Postal Services	Increased cost due to home delivery	Similar to C	Po to si

2

Table D-8

(cont'd)

ENVIRONMENTAL AND SOCIAL EFFECTS

CONCEPT B CONTROLLED GROWTH INTO SATELLITE CITIES	CONCEPT C CONTROLLED GROWTH WITH INTERIOR REDEVELOPMENT	CONCEPT D STRIP DEVELOPMENT ALONG TRANSPORTATION CORRIDORS
Similar to C	Wide variety of community activities encouraging group participation, more recreation facilities available	Similar to A
Similar to C	More independence, freedom and less responsibility due to multiple unit development	Similar to A
Similar to C	More desirable for those seeking hetergeneity, generally attracts higher educated persons	Similar to A
Similar to C	Perceived as more secure investment due to initial value and capability of projecting future value; less subject to abrupt change which would adversely affect property values	Similar to A
Similar to C	Wide variety of facilities and services in early development; residents individually or as a group willing to bear the costs; greater opportunity for community sponsored services normally provided privately	Similar to A
Development of new city police force for satellite cities or expansion of existing facilities	Less secure dependent upon security provisions within buildings	Similar to A
Similar to C	Least number of accidents, reflects decreased auto use, shorter road length, wider road widths in high density areas	Similar to A
Development of new city fire departments or expansion or present facilities	Least cost in number of stations needed for coverage, increased fire potential due to population concentration, high rise and multiple unit dwellings	Similar to A
Similar to C	Postal substations can be more aligned to population growth and spatial consideration	Similar to A

Table D-8

(cont'd)

ENVIRONMENTAL AND SOCIAL EFFECTS

GROWTH CONCEPTS	CONCEPT A LOW DENSITY URBAN SPRAWL	CONCEPT B CONTROLLED GROWTH INTO SATELLITE CITIES
Health Care	Same facilities are needed regardless of growth pattern; health care delivery dependent on distance to facility and street configuration	Similar to C
Library	Some facilities needed for constant population size	Similar to C
Government and Administration	Same needed regardless of growth pattern	Similar to C

2

Table D-8

(cont'd)

ENVIRONMENTAL AND SOCIAL EFFECTS

CONCEPT B CONTROLLED GROWTH INTO SATELLITE CITIES	CONCEPT C CONTROLLED GROWTH WITH INTERIOR REDEVELOPMENT	CONCEPT D STRIP DEVELOPMENT ALONG TRANSPORTATION CORRIDORS
Similar to C	Health care delivery might be least expensive with respect to distance to facility and street configuration	Similar to A
Similar to C	Planned community might share facilities with schools	Similar to A
Similar to C	More time will be spent in zoning and review of proposed development	Similar to A

41. The Costs of Sprawl was unable to define any conclusive evidence that the crime rate increases with increased density. The social and psychological impacts of density represent a rather new field for researchers. As an example, when the study describes high density areas, it is not to imply that overcrowding is encouraged. Some information is now known that when people are put too closely together, there are stress and unharmonious relations. However, the issue is the number of people per room. The number of people per acre does not appear to be related to such social problems as crime, conflict, and discord.

42. In American history, the frontier offered a chance to get away from "crowding". Numerous studies indicate, however, that most individuals may want privacy but not loneliness. If low density development is generally more costly to maintain, it may have other social costs. One is called "privatization", which is a condition of individuals being too far removed from their neighbors. In some instances, the single lot provides the distance but not the privacy. In treeless and undervegetated new suburbs, one's backyard and frontyard are within easy viewing distance of neighbors. Thus, the green area around the house may not provide the necessary private areas or room enough for children who are at play. Children generally need more play area than conventional yard space can provide and usually turn to the neighborhood streets for their activities.

43. Planned development may place apartments, cottages, or condominiums closer together, freeing other green spaces for public open space. More small parks can be provided as well as bike paths, green areas, and other public places.

44. Many new multi-household dwellings now provide small individual areas that allow for outdoor activity and yet provide privacy. A number of studies now suggest that the feeling of being crowded is sometimes more perceived than real. Some room arrangements feel more spacious than others. Overcrowding is also more of a social-psychological problem when the number of people per room is "crowded" regardless of neighborhood density. The location of doorways, sidewalks, and driveways have an impact on how people may get to know each other.

45. Preferred living arrangements are partly a matter of life cycle and life style. For example, high-rise apartments generally are attractive for single adults and childless couples, but not for large, low-income families.

SECTION E

INSTITUTIONAL CONSIDERATIONS OF ALTERNATIVE FUTURES

INSTITUTIONAL CONSIDERATIONS OF ALTERNATIVE FUTURES

TABLE OF CONTENTS

Item	Page
INTRODUCTION	E-1
PURPOSE	E-2
GROWTH OPTIONS	E-2
THE UNLIMITED SUBURBAN GROWTH OPTION	E-3
CONTROLLED GROWTH CONCEPT	E-5
IMPLEMENTATION OF GROWTH POLICIES	E-7
UNLIMITED SUBURBAN GROWTH	E-7
CONTROLLED GROWTH	E-8
SUMMARY	E-12

SECTION E

INSTITUTIONAL CONSIDERATIONS OF ALTERNATIVE FUTURES

Introduction

1. The presentation of institutional considerations is one of the final steps in the urban study planning process. It is the step that outlines the procedures necessary to convert a plan into an action program.

2. The previous sections of this annex presented four alternative future growth concepts, displayed capital improvements costs, and gave an indication of public preferences. Two of the concepts envision unlimited suburban growth. The other two concepts require adoption of controls on the scope and direction of growth and emphasis on the inner city redevelopment.

Purpose

3. This section presents the institutional considerations inherent in the selection of future growth policies for the urban study area. This discussion does not present institutional arrangements for specific land use patterns; rather it addresses the legal, organizational, financial, and political implications that must be considered by decision makers who are faced with developing and implementing a growth policy.

Growth Options

4. The metropolitan Omaha-Council Bluffs area has experienced population growth equal to or exceeding the National average, and there are many indications that such growth will continue. The fact that the area is experiencing growth requires the citizens and their governments to provide land and services to accomodate additional industry, commercial establishments, and people. Few representatives of city and county governments, regional agencies, and citizens groups advocate no growth. The real concerns of most citizens and officials are how much growth and where growth will occur.

5. Citizens want freedom to choose their places of residence, want property values to increase, want the very best service available, and want all of these with the lowest possible taxes.

6. City officials want orderly growth, want to keep the central city from deteriorating, want sufficient tax revenues to maintain all areas of the city, and usually want to demonstrate progress and efficient city operation to the citizens.

7. In order to satisfy the maximum number of desires, citizens and officials must decide upon a growth policy that is sufficiently comprehensive to address all problem areas yet flexible enough to allow for changing physical and economic factors. The citizens and governmental officials appear to be considering two growth options: unlimited suburban growth and controlled growth.

THE UNLIMITED SUBURBAN GROWTH OPTION

8. Generally, unlimited suburban growth results in horizontal sprawl and inner-city deterioration. It is characterized by governmental encouragement of commercial, industrial, and residential development.

9. If this option were adopted by communities in the study area, many of the following policies would be considered by decision makers:

- Consumer choice can best be served when commercial enterprise is free to choose land arrangements most attractive to clients;

- Zoning regulations would be sufficiently flexible to permit additional industrial and commercial activities to move into the cities;

- Planning agencies would generally work in an "advisory", "neutral", or "support" function to private developers by identifying population shifts and potential market changes that would retard economic incentive;

- Utility companies and municipal wastewater treatment agencies would function to help serve all new customers. Local incentives to developers would be provided to spur construction and reverse economic downturns;

- City government would act in an "advisory" or "support" capacity to private development. Suburban industrial parks, branch banking, decentralization of shopping areas, and other activities would be permitted to follow the outward dispersion of clients;

- Mass transit systems would generally be geared to only those who cannot afford one or more automobiles. Street planning would be based on efficiency and minimum loss of revenue to the city. Streets would be widened and major arterial construction would be increased to provide commuters with the best available transportation network; and

- To spur construction, the Federal government would be requested to provide subsidies for new single family-dwelling units.

10. Ultimately, a philosophy would generally be encouraged which views individuals as independent and free to make choices. Land

and water would be viewed as a commodity which is owned and sold to contracting parties.

CONTROLLED GROWTH CONCEPT

11. The concept of controlled growth envisions communities that develop, adopt, and enforce land-use plans which limit sprawl, maintain property values in all parts of the city, emphasize urban redevelopment, require adequate recreation facilities, and permit construction of controlled but adequate numbers of single dwelling units in suburban areas.

12. This concept is characterized by up-to-date master plans which reflect citizen input generated by an aggressive campaign by the elected officials to achieve citizen education and participation during plan formulation.

13. If this option were adopted by communities, many of the following policies would be considered by decision makers:

Development of cities must be based upon comprehensive land-use planning which provides for orderly outward growth, expansion of commercial and industrial areas, buffers between non-compatible land uses, redevelopment of deteriorated areas, and regional cooperation among cities;

- Zoning ordinances would be enacted to implement and enforce land-use plans;

- Fringe development would be limited until inner-city redevelopment and fill-in of vacant areas was accomplished. Economic incentives would be provided to encourage fill-in and redevelopment;

- Utility companies would be responsive to community management by adopting expansion policies compatible with community master plans;

- Taxing structures would be revised to preserve agricultural land;

- Mass transit systems would be modern, attractive, fast, and available to the majority of the residents;

- Municipal or regional wastewater management facilities would be designed to serve only those areas included in master plans. All new development would be required to connect to approved municipal or regional systems;

- Commuters from outside the city would be required to pay a proportionate share of the cost of maintaining lines of transportation and communication;

- Redevelopment of the inner city would be an active program aimed at restoring property values and rebuilding deteriorated areas; and

- Active citizen education programs would be provided to maintain interest and participation in total city improvement.

Implementation of Growth Policies

UNLIMITED SUBURBAN GROWTH

13. Unlimited suburban growth has been the concept followed in the Nebraska portion of the study area for the past ten years. During the same period there has been limited growth of suburbs in Iowa.

14. In Nebraska, the existing institutions permit and encourage suburban growth. The residential housing developers and their financial backers find the best market for new homes on the outskirts of Omaha, Bellevue, Papillion, and La Vista rather than in the central portions of the cities. The Sanitary and Improvement District (SID) law permits developers to proceed with construction with a minimum amount of initial investment. Nebraska Statutes give the cities the power to zone the land adjacent to their corporate limits. City planners and city councils have permitted and often encouraged the establishment of SID's as evidenced by the fact that nearly 400 SID's have lead the growth of the metropolitan area. Two hundred and fifty SID's are currently active, representing mini-governments in the metropolitan area.

15. The city of Omaha is attempting to reverse the trend of suburban growth. The Mayor has established a committee to review SID projects and to make recommendations on annexation to the city council. The city staff has been supporting a legislative change to the SID law in an attempt to place more restrictions on the on the organizational and financial operations of SID's. The city

planning department has developed an urban expansion policy aimed at redeveloping the central city and limiting suburban expansion.

16. There is some indication that citizens favor a more controlled growth of Omaha. The planning staff is preparing the urban expansion policy for presentation to the city council. Despite these actions and those by the Mayor, it is the city council members who control growth of the city by their voting on annexation proposals. The members of the city council are responsive to their constituents and supporters. Until the city council adopts a comprehensive growth policy such as the one developed by the planning department unlimited suburban growth could continue in Douglas County.

17. In Iowa, rapid growth and unlimited suburban expansion would not be probable without significant changes in the attitudes of citizens, State officials, and city and county officials. Zoning powers outside the corporate limits of the cities are given to the county boards of supervisors. Effective 1 July 1975, all proposed city boundary changes will have to be sent to the State's City Development Board for review and approval. Many citizens and governmental officials in the study area have indicated they are in favor of gradual and restricted growth. Official growth projections for Iowa cities support this evidence of restricted growth desires.

CONTROLLED GROWTH

CONTROLLING GROWTH IN NEBRASKA

18. Growth controls in Nebraska could be accomplished either by a system of legislative mandates or by stricter enforcement of existing statutes. Nebraska laws emphasize local control over local

affairs. In general, the statutes set forth standards; local and regional governments enforce them.

19. Legislated Growth Controls. It is possible to control or restrict growth of cities by the adoption of State laws. In general, such control would require the Nebraska Legislature to modify the SID law, enact strong land use regulations, and establish a system for monitoring proposed growth.

20. The SID law has been modified several times in an attempt to eliminate unfair business practices by SID directors. The modifications have succeeded in providing some protection for individual home owners. Changes have not addressed the relationships between the cities and SID's. The State Legislature could restrict the establishment of SID's by modifying their organizational and financial operations or by repealing the SID law. A bill (LB 313) was introduced in the 1974-75 session which, if enacted, would have caused SID's to repay general obligation debts in equal annual payments and would have caused SID's to file minutes of SID meetings with city or county offices. LB 313 was not cleared through committee before the Legislature adjourned.

21. The State could enact strong land-use control laws requiring cities to accomplish the following:

- Adopt minimum residential densities;

- Provide more open space and recreation facilities;

- Require all new developments to connect wastewater collection systems to municipal or regional treatment systems;

• Limit fringe growth and redevelop deteriorated or vacant urban land; and

• Conduct coordination on proposed growth with adjacent cities to insure regional cooperation.

22. The State could adopt a system for monitoring growth and enforcing State laws on growth. This would require the enactment of a system of laws establishing growth regulations and an agency to enforce the regulations.

23. Local Growth Controls. As a result of institutional analysis, it has been determined that controls on growth of cities to limit suburban sprawl and insure urban redevelopment can be established by Nebraska cities within the framework of existing laws. As stated before, the statutes emphasize local control of local affairs. Cities have zoning authority to control land use and direction of growth. In addition, the cities have wastewater management control which can be used as a lever to influence land use and growth.

24. When implementing State laws, cities have the authority, in most cases, to enact ordinances that are more restrictive than the State laws. If the Nebraska cities wish to enact land use controls and ordinances to limit the establishment or the location of suburban development, it is within their delegated powers to do so. The following institutional arrangements should be considered by any Nebraska city desiring to control growth;

• Develop, in cooperation with citizens, a comprehensive master plan to include future land use and officially adopt it;

- Enact necessary ordinances to update and enforce the plan;

- Develop a comprehensive wastewater management system and require all new and existing developments to connect to the system;

- Establish effective coordination with neighboring cities to the extent required to insure that growth programs are regionally compatible; and

- Establish effective relationships with public utilities to insure their compliance with comprehensive plans.

25. The above local institutional arrangements are in various stages of accomplishment in the city of Omaha. The key element in the establishment of growth controls is the adoption of the master plan. The significant prerequisite for adoption of the master plan is full public participation and approval of the growth philosophy of the master plan.

26. Adopting a controlled growth policy in this study area has two major obstacles. First, suburban sprawl is difficult to stop because the residential development industry is strong. The political problems associated with reversing the outward growth trend would be difficult to overcome. The second problem is one of regional competition for new industry and new residents. Many citizens and officials interviewed felt that a restricted growth policy in and around one city in the metropolitan area would simply shift the sprawl to another city that did not restrict growth. Thus, it appears that controlled growth concepts must be regionally coordinated and implemented. A political analysis indicates that

the atmosphere of cooperation between cities in this area is not conducive to the adoption of a regional growth policy at this time.

CONTROLLING GROWTH IN IOWA

27. Growth controls in Iowa are incorporated in existing institutional arrangements. Growth has been slow in the Iowa portion of the study area, but it is not readily apparent whether the slow growth is the result of the institutional arrangements. It seems reasonable that rapid growth of suburbs could be retarded by the existing procedures necessary to establish new residential developments.

Summary

28. This presentation of the institutional considerations of alternative growth futures has shown the major factors affecting the selection of a growth policy and the general measures necessary to implement and enforce the policy.

29. Unlimited suburban growth is popular among the developers and those financial interests that support development. Institutions in Iowa have the means to control growth but no "control growth" philosphy is readily apparent. The city of Omaha, however, is seeking ways to control growth. In the long haul, unlimited suburban growth and its associated sprawl, deterioration of the central city, and increased cost of services will become most unpopular among the citizens whose taxes must pay the bills.

30. Limiting and controlling growth are not politically easy to accomplish. It is difficult to determine how much growth is needed or desired and equally difficult to determine the desired direction growth should take. Even when those two variables are eliminated, selling a growth-control plan is subject to a multitude of problems.

31. It has been the purpose of this study to assist local decision makers by identifying alternative growth futures and pointing out what appear to be the considerations surrounding the selection between an unlimited growth policy and a controlled growth policy.

SECTION F

POPULATION PROJECTION TABLES

POPULATION PROJECTION TABLES

TABLE OF CONTENTS

LIST OF TABLES

No.	Title	Page
F-1	POPULATION PROJECTIONS FOR SEVEN COUNTY COMMUNITIES EXCLUSIVE OF THE GREATER METROPOLITAN AREA	F-3
F-2	1970 POPULATIONS - RURAL PRECINCTS AND TOWNSHIPS	F-5
F-3	CENSUS TRACT PROJECTIONS FOR THE OMAHA - COUNCIL BLUFFS METROPOLITAN AREA	F-9

LIST OF FIGURES

No.	Title	Follows Page No.
F-1	PRECINCTS AND TOWNSHIPS IN IOWA AND NEBRASKA	F-12
F-2	LOCATION OF CENSUS TRACTS	F-12

SECTION F

POPULATION PROJECTION TABLES

1. Table F-1 lists the 1995 and 2020 population projections used in the study for all communities outside the urban census tract areas. These projections were used for all growth concepts and communities except for the satellite cities under Concept B.

2. For Nebraska communities, projections developed by the University of Nebraska, Bureau of Business Research, and the Center for Applied Urban Research for the State Office of Planning and Programming (September, 1973) were used. The medium projections were used representing Bureau of the Census Series "E" projections.

3. For Iowa, community population projections were not as well defined as in Nebraska. Existing county plans and historical trends were used as a basis for determining 1995 to 2020 projections. Some adjustments were necessary to agree with 1990 county projections formed by the Iowa Office of Planning and Programming.

4. Rural population for the townships and precincts were assumed to be stable at 1970 levels throughout the planning period. These populations are shown in table F-2. Location of the precincts and townships are shown in figure F-1.

5. Table F-3 lists 1995 and 2020 population projections for the urban area census tracts, townships, and precincts under the four growth patterns. Also included are the satellite projections under Growth Concept B. Location of the census tracts are shown on figure F-2.

Table F-1
Population Projections For Seven County
Communities Exclusive Of The Greater Metropolitan Area

NEBRASKA	1970	1995	2020
CASS COUNTY			
Alvo	151	136	124
Avoca	229	271	280
Cedar Creek	185	229	246
Eagle	441	778	983
Elmwood	548	757	902
Greenwood	506	868	1,097
Louisville	1,036	890	813
Manley	150	265	335
Murdock	262	314	328
Murray	286	327	327
Nehawka	298	389	444
Plattsmouth	6,371	7,684	8,057
South Bend	86	86	80
Union	275	244	223
Weeping Water	1,143	1,374	1,392
DOUGLAS COUNTY			
Bennington	683	2,385	3,144
Boys Town	989	1,018	1,039
Elkhorn	1,184	2,851	3,819
Ralston	4,731	6,254	6,715
Valley	1,595	2,555	3,325
Waterloo	455	545	814
SARPY COUNTY			
Bellevue	21,953	59,941	77,125
Gretna	1,557	7,365	13,208
La Vista	4,807	11,672	17,714
Offutt East	5,195	5,330	5,183
Offutt West	8,445	10,002	13,003
Papillion	5,606	17,187	23,318
Springfield	795	3,378	7,093
WASHINGTON COUNTY			
Arlington	910	1,345	1,446
Blair	6,106	9,343	10,393
Fort Calhoun	642	1,353	1,708
Herman	323	311	284
Kennard	336	341	311
Washington	76	149	189

Table F-1
Cont'd
Population Projections For Seven County
Communities Exclusive Of The Greater Metropolitan Area

IOWA	1970	1995	2020
HARRISON COUNTY			
Dunlap	1,315	1,485	1,511
Little Sioux	244	283	283
Logan	1,557	1,781	1,844
Magnolia	206	204	180
Missouri Valley	3,568	3,930	4,341
Modale	294	275	250
Mondamin	417	395	314
Persia	315	305	285
Pisgah	289	312	312
Woodbine	1,391	1,700	1,848
MILLS COUNTY			
Emerson	484	574	620
Glenwood	4,421	5,500	6,312
Hastings	229	130	85
Henderson	211	190	170
Malvern	1,158	1,026	896
Pacific Junction	505	449	393
Silver City	272	223	174
Tabor	957	1,067	1,177
POTTAWATTAMIE COUNTY			
Avoca	1,535	1,790	2,047
Carson	756	900	912
Carter Lake	3,270	6,740	9,046
Crescent	299	410	560
Hancock	228	270	280
McClelland	146	150	156
Macedonia	330	435	470
Minden	433	525	540
Neola	968	1,200	1,395
Oakland	1,603	1,820	2,060
Treynor	472	1,350	1,929
Underwood	424	820	1,028
Walnut	870	1,050	1,200

Table F-2
1970 Populations
Rural Precincts and Townships

NEBRASKA

Douglas County

Precinct or Township	1970 Population
Platte Valley	1,001
Waterloo	794
Elkhorn	664
	2,459

Cass County

Precinct or Township	1970 Population
Avoca Precinct	215
Center Precinct	486
East Rock Bluffs	255
Eight Milegrove	513
Elmwood	376
Greenwood	321
Liberty	347
Louisville	287
Mt. Pleasant	327
Nehawka	129
Plattsmouth	1,150
Salt Creek	243
South Bend	317
Stove Creek	350
Tipton	330
Weeping Water	352
West Rock Bluffs	399
	5,937

Sarpy County

	1970 Population
Fairview	396
LaPlatte	879
Melia Forest City	756
Platford-Springfield #2	781
	2,812

Table F-2
(Cont'd)
1970 Populations
Rural Precincts and Townships

Washington County	1970 Population
Township	
Arlington	695
Blair	332
Cuming City	357
DeSoto	370
Fontanelle	1,171
Ft. Calhoun	1,217
Herman	769
	4,911

Table F-2
(Cont'd)
1970 Populations
Rural Precincts and Townships

IOWA

Mills County

Township	1970 Population
Anderson	459
Center	360
Deer Creek	291
Glenwood	283
Indian Creek	471
Ingraham	301
Lyons	204
Malvern	0
Oak	740
Plattville	270
Rawlers	362
St. Mary's	119
Silver Creek	169
White Cloud	251
	4,280

Pottawattamie County	1970 Population
Belknap	212
Boomer	515
Carson	222
Center	297
Crescent	811
Grove	276
Layton	316
Knox	318
Keg Creek	655
Macedonia	257
Minden	332
Neola	512
Pleasant	343
Rockford	574
Wright	288
	5,928

Table F-2
(Cont'd)
1970 Populations
Rural Precincts and Townships

IOWA (Cont'd)

Harrison County

Township	1970 Population
Allen	273
Boyer	398
Calhoun	250
Cass	382
Cincinnati	244
Clay	186
Douglas	411
Harrison	388
Jackson	254
Jefferson	492
LaGrange	303
Lincoln	288
Little Sioux	321
Magnolia	560
Morgan	146
Raglan	218
St. John	609
Taylor	219
Union	391
Washington	437
	6,770

Table F-3
Census Tract Projections For The Omaha-Council Bluffs Metropolitan Area

TRACT	1970 POP.	1995 PROJECTIONS CONCEPTS A	B	C	D	2020 PROJECTIONS CONCEPTS A	B	C	D
2	5524	4430	4430	5000	4430	5000	5000	6000	5000
3	3254	2025	2025	3300	2025	2025	3300	3300	2025
4	3040	2800	2800	3000	2800	2800	3000	3000	2800
5	2298	0	0	0	0	0	0	0	0
6	3573	2025	2025	3500	2025	2025	3500	5000	2025
7	3142	4990	4990	5000	4990	4990	5000	5000	4990
8	4004	4350	4350	5500	4350	5380	5500	5500	5380
9	1959	2243	2243	3000	2243	2646	3000	3000	2646
10	2177	2690	2690	4000	2690	3402	4000	4000	3402
11	2538	3047	3047	4000	3047	3780	4000	4000	3780
12	2241	2536	2536	3500	2536	2880	3500	3500	2880
13.01	1448	1670	1670	2500	1670	2040	2500	2500	2040
13.02	720	1176	1176	1200	1176	1176	1200	1200	1176
14	653	560	560	700	560	560	700	700	560
15	1212	1939	1939	2100	1939	2100	2100	2100	2100
16	2755	1720	1720	2000	1720	1520	2000	2800	1520
17	1566	576	576[1]	1500	576	576	1500[1]	1500	576
18	1700	1180	8000[1]	8000	1180	1080	8000[1]	10000	1080
19	2408	2500	2500	3000	2500	2660	3000	3000	2660
20	3357	2897	2897	3300	2897	2816	3300	3300	2816
21	2648	2332	2332	2600	2332	2288	2600	2600	2288
22	2542	1647	1647	2300	1647	1512	2300	2300	1512
23	3244	4500	4500	5000	4500	4880	5000	5000	4880
24	3312	3900	3900	5000	3900	4750	5000	5000	4750
25	3004	2595	2595	3000	2595	2112	3000	3000	2112
26	2359	2000	2000	2000	2000	2000	2000	2500	2000
27	2540	2550	2550	3000	2550	2800	3000	3000	2800
28	3628	3600	3600	3500	3600	3450	3500	3500	3450
29	5408	2850	2850	7300	2850	2850	7300	7300	2850
30	7581	5770	5770	8000	5770	5770	8000	8000	5770
31	4350	4840	4840	5000	4840	3800	5000	3800	3800
32	-	2405	2405[2] 6000[3] 10000[4] 24000	2000	2405	1440	2000[2] 8000[3] 10000[4] 30000	2000	1440
33	3110	2640	2640	3000	2640	2640	3000	4300	2640
34.01	4622	2890	2890	4000	2890	2890	4000	4200	2890
34.02	2954	2917	2917	3000	2917	2925	3000	3000	2925
35	5501	5000	5000	5000	5000	5000	5000	6000	5000
36	5476	6500	6500	7500	6500	5200	7500	7500	5200
37	3473	3456	3456	4000	3456	3456	4000	4000	3456
38	5457	4212	4212	4300	4212	3982	4300	4300	3982
39	2756	2240	2240	2800	2240	2240	2800	2800	2240
40	2573	1600	1600	5000	1600	1600	5000	5000	1600
41	1326	1600	1600	1600	1600	1600	1600	1600	1600
42	1894	1707	1707	2800	1707	1707	2800	2800	1707
43	3248	3130	3130	4200	3130	3130	4200	4200	3130
44	2201	3340	3340	3500	3340	3340	3500	4000	3340
45	3912	3402	3402	3500	3402	3402	3500	4000	3402
46	2269	2000	2000	2300	2000	1800	2300	2300	1800
47	2912	4150	4150	4200	4150	4150	4200	4200	4150
48	5522	5425	5425	6000	5425	5425	6000	6000	5425
49	5859	5915	5915	7000	5915	5915	7000	7000	5915
50	5173	4964	4964	6000	4964	4800	6000	7000	4800

Table F-3
(Cont'd)
Census Tract Projections For The
Omaha-Council Bluffs Metropolitan Area

		1995 PROJECTIONS CONCEPTS				2020 PROJECTIONS CONCEPTS			
TRACT	1970 POP.	A	B	C	D	A	B	C	D
51	4079	4320	4320	6000	4320	4320	6000	6000	4320
52	3410	3360	3360	4000	3360	3360	4000	4000	3360
53	3197	5180	5180	8000	5780	6820	8000	8000	6820
54	4379	4196	4196	4200	4196	4196	4200	4200	4196
55	6414	7055	7055	7000	7055	7055	7000	7000	7055
56	5374	5460	5460	5500	5460	5460	5500	5500	5460
57	5627	5500	5500	5700	5500	5500	5700	5700	5500
58	5782	6470	6470	5800	6470	6470	5800	5800	6470
59.01	3471	3885	3885	3600	3885	3885	3600	3600	3885
59.02	3854	4260	4260	6500	4260	4260	6500	9000	4260
60	5972	6410	6410	8000	6410	6410	8000	8000	6410
61.01	3450	2720	2720	4000	2720	2720	4000	4000	2720
61.02	6139	6350	6350	6000	6350	6350	6000	6500	6350
62.01	923	2500	2500	5000	2500	5000	5000	5000	5000
62.02	6130	6200	6200	7000	6200	6600	7000	7000	6600
63	9366	10500	10500	15000	10500	12500	15000	16000	12500
64	6952	7000	7000	7000	7000	7000	7000	7000	7000
65.01	7315	9270	10000	20000	9270	11000	25600	26000	11000
65.02	5401	6752	6600	7500	6752	6752	6700	7500	6752
66	12458	14500	18800	19000	14500	16500	19000	19000	16500
67.01	5035	8470	6400	6400	8470	8470	6400	6400	8470
67.02	2466	12000	12000	12100	12000	12000	12000	12100	12000
68.01	6733	6780	7100	7300	6780	7000	7300	7300	7000
68.02	4049	5000	6000	6000	5000	6000	6000	6000	6000
69.01	7783	6900	5200	7700	6900	6900	7700	7700	6900
69.02	8854	8965	9000	9000	8965	9000	10000	10000	9000
70	9926	10000	10750	12000	10000	10000	12000	12000	10000
71	7644	10700	9600	12000	10700	10700	11000	12000	10700
73.01	3083	3000	1000	1000	3000	5000	1000	1000	5000
73.02	838	9800	3000	2000	9800	25000	3000	29000	25000
73.03	655	3170	6000	8000	3170	7200	10000	15000	7200
73.04	1977	5540	3000	4000	5540	6000	3000	8000	6000
73.05	35	1700	50	50	900	3000	50	50	1590
73.06	45	500	50	50	500	1500	50	50	1500
73.07	1400	2300	15000[5]	1500	1486	3500	19500[5]	1500	2500
73.08	405	5200	600	600	2200	8000	600	1000	6000
73.09	750	8830	800	2000	3830	10000	800	6000	8000
74.01	466	11500	2000	4000	11500	13500	2000	15000	13500
74.02	11874	24370	25000	25000	24370	24370	30000	35000	24370
74.03	4189	8460	8000	10000	8460	10000	12000	12000	10000
74.04	3114	6230	11000	11000	6230	8000	15000	15000	8000
74.05	992	2190	2700	3000	2190	4000	3000	5000	4000
74.06	1725	2900	4200	6000	2900	3500	6000	6000	3500
74.07	3269	3690	5000	5000	3690	5000	5000	5000	5000
74.08	4347	4600	4700[16] 2000	6000	4600	5000	6000[16] 2000	6000	5000
74.09	1528	3600	4100	4500	3600	3600	5000	5000	3600
74.10	135	0	0	0	0	0	0	0	0
74.11	4213	5450	6000	6500	4950	5450	8000	8000	4950
74.12	5888	19730	18800	20000	19730	19730	25000	28973	19730
74.13	7566	17430	12000	20000	17430	17430	18000	20000	17430
74.14	55	6000	2000	2000	3000	7000	2000	2000	5000

Table F-3
(Cont'd)
Census Tract Projections For The Omaha-Council Bluffs Metropolitan Area

		1995 PROJECTIONS CONCEPTS				2020 PROJECTIONS CONCEPTS			
TRACT	1970 POP.	A	B	C	D	A	B	C	D
74.15	555	9400	2000	3000	3400	10900	2000	3000	5900
74.16	447	4500	2000	2000	2200	10000	2000	2000	4300
74.17	320	6375	50	50	7675	12975	50	50	19200
75.01	45	500*	50	37*	500	11080	50	50*	1800
75.02	40	1000*	300	285*	600	20200	300	285*	2920
75.03	710	3322*	15000[6]	3300*	3822	20400	19500[6]	3300*	16600
75.04	110	400*	5000[7]	400*	300	2000	6000[7]	400*	1500
75.05		*	**	*	*	*	**	*	*
101.01	2012	14000	8400	15000	14000	14000	15000	15000	14000
101.02	11942	17100	15000[8]	15000	17100	17100	17000	16000	17100
102	1424	9300	600[9] 1500[9]	1924	9300	10000	600[8] 1500[9]	5000	12000
103.01	8645	12000	14000	8500	10000	12000	14000	14000	10000
103.02	5195	7000	5000	5300	9000	7000	5000	5700	9000
104	7941	10000	6700	5600	9000	10000	6700	8000	9000
105.01	2240	6750	3300	4000	6250	6750	4000	5000	6250
105.02	3730	4750	7600	13000	4750	5000	13000	14000	8000
105.03	2395	6400	7000	11000	6400	6400	12000	12000	6400
105.04	2350	7800	5600	9300	7800	7800	9300	9300	7800
106.01	1988	2475*	25000[10]	2500*	1530	23000	35000[10]	3800*	7750
106.02	105	6050	100	200	8550	10000	100	200	16900
106.03	120	13500	3000	3000	16000	18000	3000	6000	23700
106.04	170	8500	4000	4000	14500	13500	4000	10000	14500
106.05	520	10200	5000	6000	9700	11950	10000	11000	13300
106.06	10600	54500	45000	50000	56000	65350	45000	72000	72300
La Platte		12910			3910	14000		1200*	
107	2319	1464*	20000[11]	1200*	1464	1800	25000[11]	6700	1800
301	5675	6100	6100	6100	5100	6700	6700	6700	5600
302	2812	3800	3800	3800	6300	3800	3800	4000	6300
303	4676	5300	5300	5300	4300	5300	5300	5800	4300
304.01	3390	4000	4000	4000	4000	4000	4000	4000	4000
304.02	3011	3000	3000	3000	3000	3000	3000	4100	3000
305.01	2728	2750	2800	2800	2750	2750	2800	2800	2750
305.02	3138	3100	3100	3100	3100	3900	3100	3900	3900
306.01	2905	2950	2950	3000	2950	2950	3000	3000	2950
306.02	3548	3000	3000	3000	3000	3900	3800	3900	3900
307	3991	4000	4000	4400	3000	4500	4500	4400	3375
308	3373	2400	2400	2400	1400	2400	2400	3400	1400
309	2387	2400	2400	2400	2400	2400	3625	3625	2400
310	3399	3870	3870	3870	2870	3870	3870	3870	2870
311	4489	3650	3650	4800	2150	4000	4000	5950	2360
312	2837	2850	2850	6080	3850	3550	3600	7400	4800
313	939	1950	2000[12]	2600	1950	4000	4000[12]	3950	4000
314	2630	4050	10000[12]	4000	4050	4600	10000[12]	4000	4600
315	1938	2500	2500	2500	3500	5800	1500	2500	8120
316	1720	6930	4000	4000	7430	8800	4000	6200	9430
317	1693	3800	2200	2200	4300	9000	2200	2200	10800
318	1148	2950	2000	2000	3950	5350	2000	5600	7160
212	3628	3275	3275[13] 7000[14] 20000[15] 10000[15]	3275	3275	4000	3275[13] 7000[14] 20000[15] 10000[15]	3275	4000

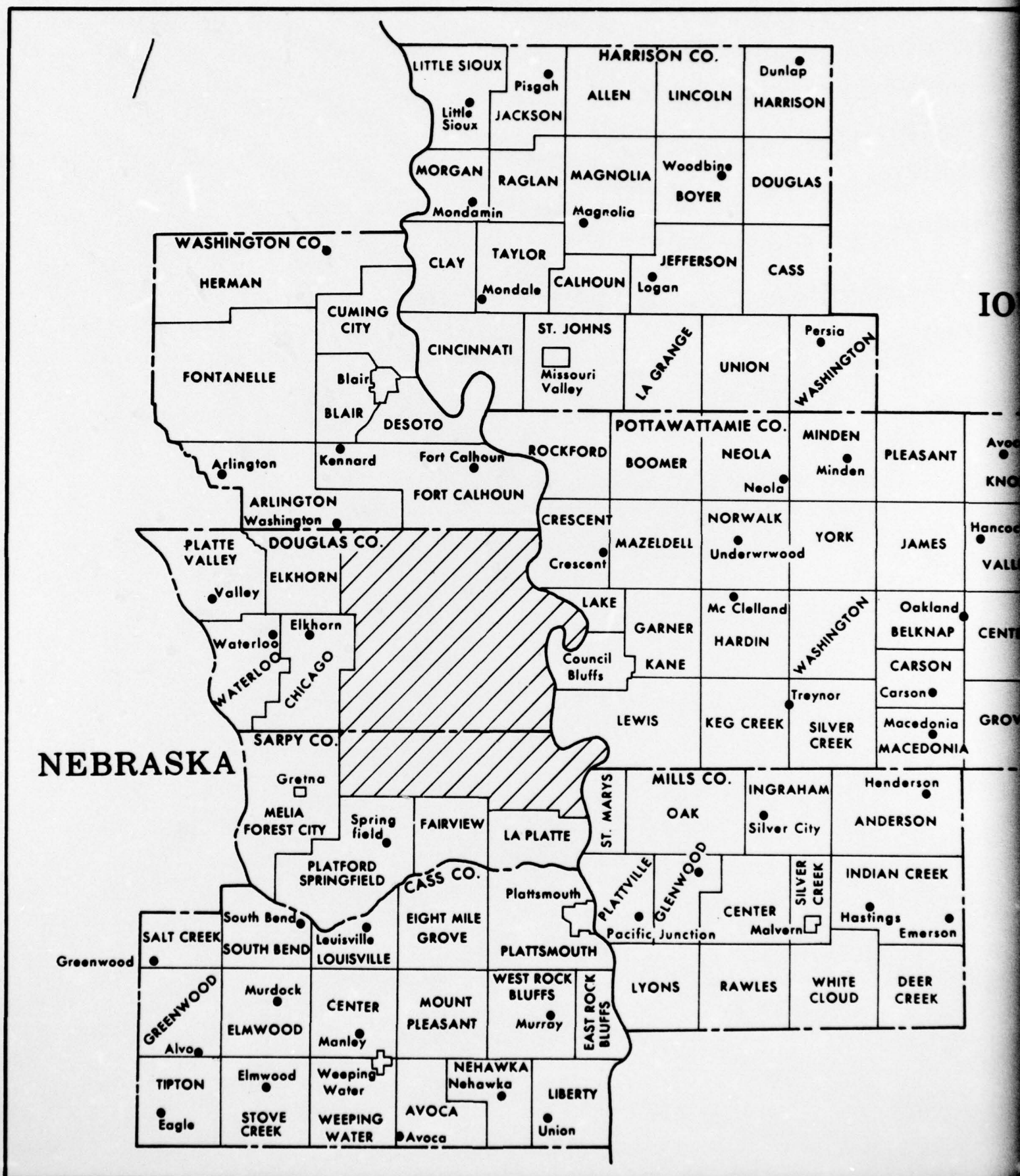
Table F-3
(Cont'd)
Census Tract Projections For The
Omaha-Council Bluffs Metropolitan Area

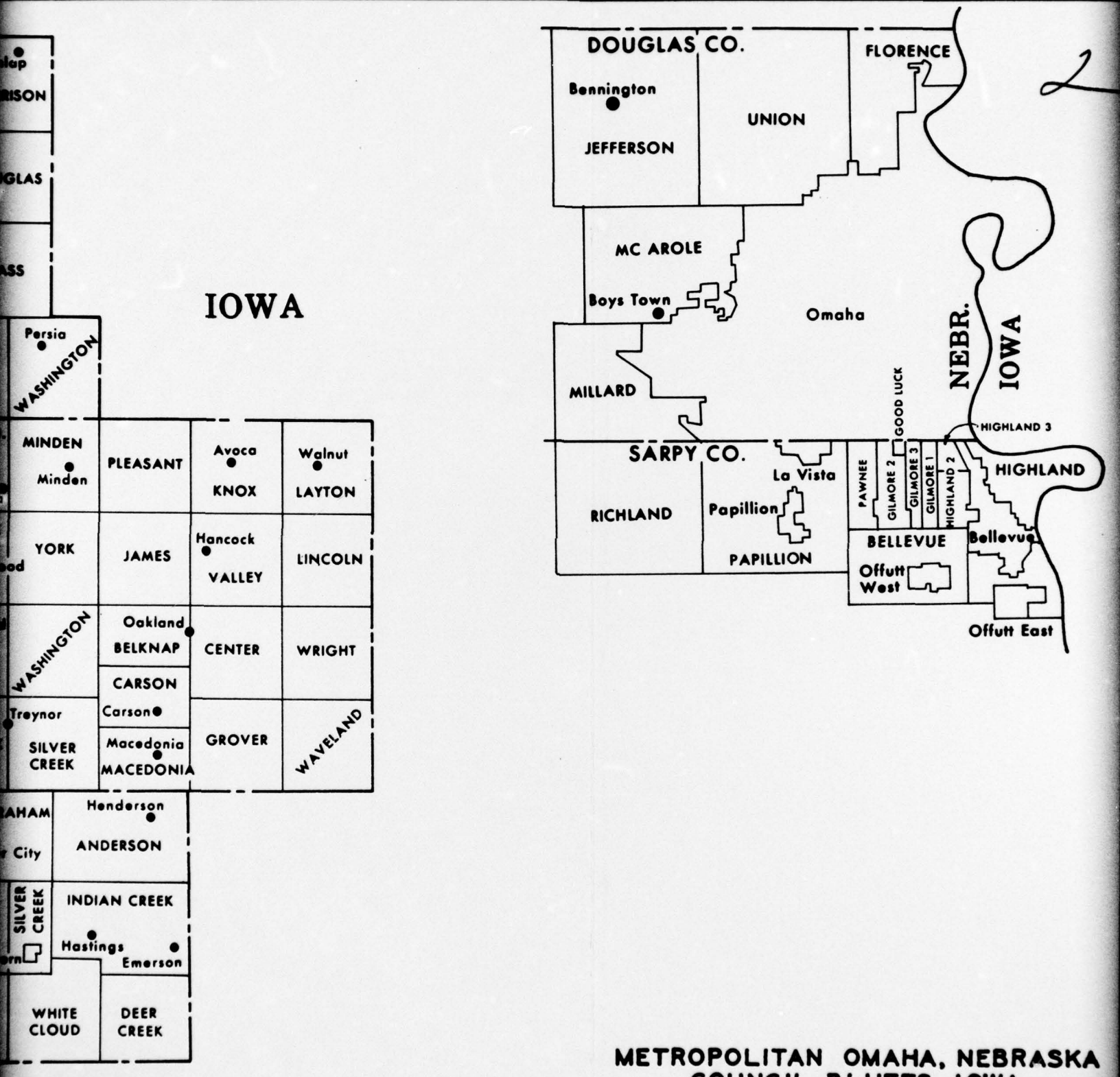
Footnotes

1. New Town-In-Town
2. Fort Calhoun
3. Missouri Valley
4. Blair
5. Bennington New Town
6. Elkhorn Satellite City
7. Valley Satellite City
8. Bellevue Precinct
9. La Platte Precinct
10. Gretna Satellite City
11. Springfield Satellite City
12. Council Bluffs New Town
13. East Bellevue New Town
14. Plattsmouth
15. Glenwood
16. Florence Precinct

* Outside Cordon

** Doesn't apply to Concept B


NEBRASKA
LITTLE SIOUX
Little Sioux
Pisgah
JACKSON
HARRISON CO.
ALLEN
LINCOLN
Dunlap
HARRISON
MORGAN
Mondamin
RAGLAN
MAGNOLIA
Magnolia
Woodbine
BOYER
DOUGLAS
WASHINGTON CO.
HERMAN
CLAY
TAYLOR
Mondale
CALHOUN
Logan
JEFFERSON
CASS
CUMING CITY
FONTANELLE
Blair
BLAIR
DESOTO
CINCINNATI
ST. JOHNS
Missouri Valley
LA GRANGE
UNION
Persia
WASHINGTON
POTTAWATTAMIE CO.
Arlington
Kennard
Fort Calhoun
ROCKFORD
BOOMER
NEOLA
Neola
MINDEN
Minden
PLEASANT
ARLINGTON
Washington
FORT CALHOUN
CRESCENT
Crescent
MAZELDELL
NORWALK
Underwrwood
YORK
JAMES
PLATTE VALLEY
Valley
DOUGLAS CO.
ELKHORN
LAKE
Mc Clelland
GARNER
HARDIN
WASHINGTON
Oakland
BELKNAP
Waterloo
Elkhorn
WATERLOO
CHICAGO
Council Bluffs
KANE
CARSON
Carson
Treynor
LEWIS
KEG CREEK
SILVER CREEK
Macedonia
MACEDONIA
SARPY CO.
Gretna
MELIA
FOREST CITY
Spring field
FAIRVIEW
LA PLATTE
ST. MARYS
MILLS CO.
OAK
INGRAHAM
Silver City
Henderson
ANDERSON
PLATFORD
SPRINGFIELD
CASS CO.
Plattsmouth
PLATTVILLE
GLENWOOD
SILVER CREEK
INDIAN CREEK
Pacific Junction
CENTER
Malvern
Hastings
Emerson
South Bend
SALT CREEK
SOUTH BEND
Leuisville
LOUISVILLE
EIGHT MILE GROVE
PLATTSMOUTH
Greenwood
GREENWOOD
Alvo
Murdock
ELMWOOD
CENTER
Manley
MOUNT PLEASANT
WEST ROCK BLUFFS
Murray
EAST ROCK BLUFFS
LYONS
RAWLES
WHITE CLOUD
DEER CREEK
TIPTON
Eagle
Elmwood
STOVE CREEK
Weeping Water
WEEPING WATER
NEHAWKA
Nehawka
AVOCA
Avoca
LIBERTY
Union

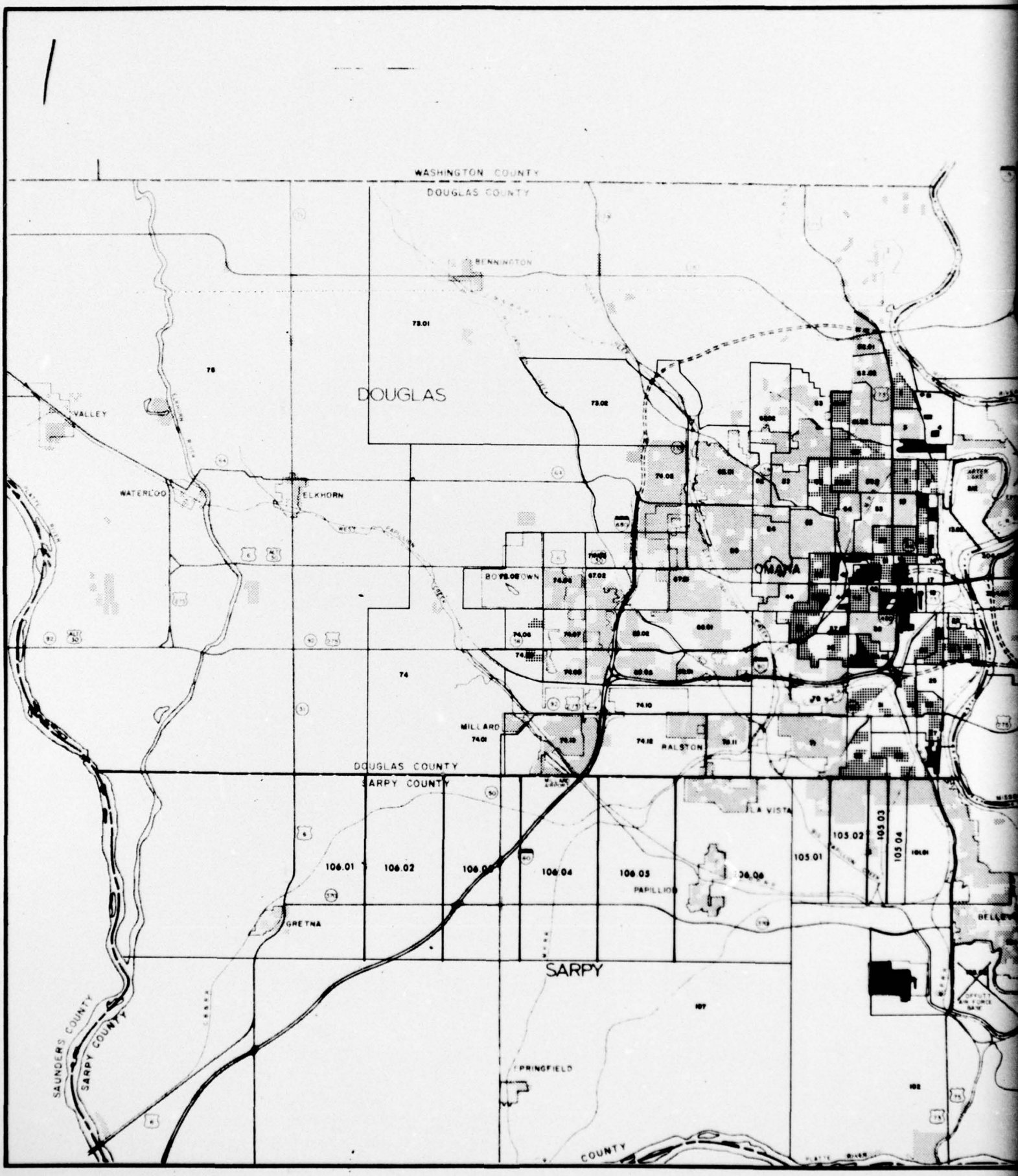


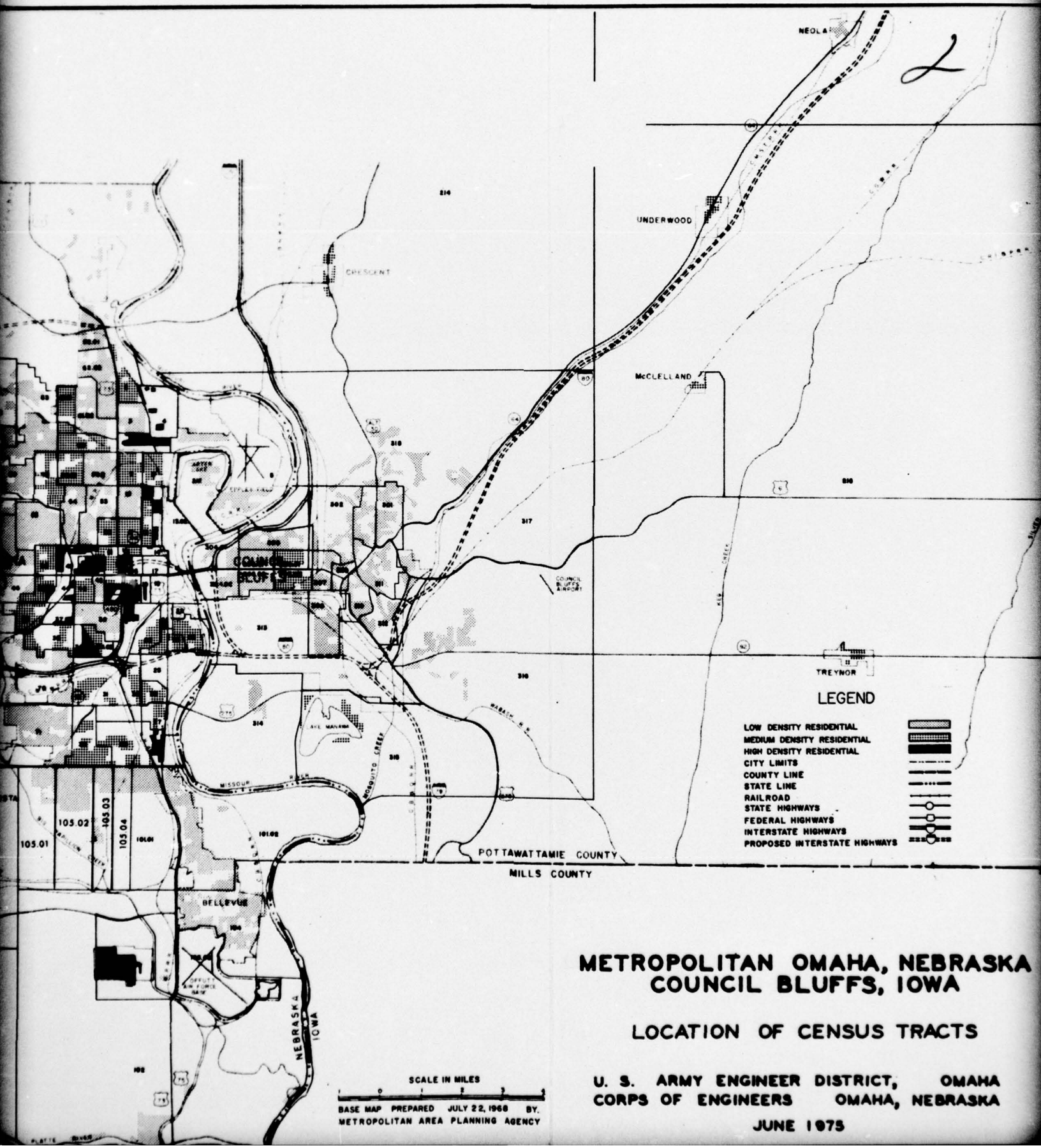
METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA

PRECINCTS AND TOWNSHIPS
IOWA AND NEBRASKA

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

JUNE 1975


WASHINGTON COUNTY
DOUGLAS COUNTY
BENNINGTON
DOUGLAS
VALLEY
WATERLOO
ELKHORN
WEST PAPILLION CREEK
BOYS TOWN
OMAHA
MILLARD
RALSTON
DOUGLAS COUNTY
SARPY COUNTY
LA VISTA
PAPILLION
GRETNA
SARPY
SPRINGFIELD
SAUNDERS COUNTY
SARPY COUNTY
COUNTY
73.01
73.02
74
74.01
74.10
74.12
106.01
106.02
106.04
106.05
106.06
105.01
105.02
105.03
105.04
107
102



METROPOLITAN OMAHA, NEBRASKA
COUNCIL BLUFFS, IOWA

LOCATION OF CENSUS TRACTS

U. S. ARMY ENGINEER DISTRICT, OMAHA
CORPS OF ENGINEERS OMAHA, NEBRASKA

JUNE 1975